

60

JOHN CRONIN  
NOV 6 1925

# Manufacturers Record

Exponent of America



\$6.50 per Year.  
Single Copy, 20 Cents.

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Chicago, Ill.  
NOV 5, 1925

## A Remarkable Symposium Worthy of Careful Study.

It was recently charged in a letter to the New York Times that educators, bankers, manufacturers and others who had written to this paper in favor of Prohibition from the economic and moral standpoint were themselves doubtless violators of the law. It was suggested that they probably favored Prohibition for other people without practicing what they preached. The Times suggested that the Manufacturers Record investigate that point. We accepted the challenge. We sent to everyone who had written a few months ago in favor of Prohibition, and whose letters were published in part in this paper and in full in a pamphlet entitled "Prohibition Has Justified Itself," a letter apologizing for such a personal inquiry into their individual affairs but asking if they were willing to accept the challenge thus presented.

Their letters, a summary of which fills seven pages of this week's issue, are being published in full in a pamphlet entitled "Slanders Against Prohibitionists Refuted," which we believe will be the most important publication ever issued by this paper or by any other publication in behalf of the Prohibition question viewed from the economic or moral standpoint or from both.

Slanders against prohibitionists are refuted with such unanimity as to demand the serious study of the whole country. Here are men, many of them of world-wide reputation as surgeons, physicians, bankers, educators, large employers of labor, who testify as to their own strict obedience to the Prohibition law and to the belief that Prohibition is invaluable whether it be viewed from the moral or from the economic standpoint. This summary published today gives a condensation in a sentence or two from these letters.

It is impossible, we think, to overstress the importance of these letters, for Prohibition as an economic factor is responsible for much of the prosperity of this country, for the enormous increase in savings banks deposits, in the building of homes, in the purchase of automobiles and in all the other activities that stimulate the progress and increase the welfare of the country, and as a moral factor it is even more important, just as the soul of a man is more important than his material body.

The full replies, which will appear in the pamphlet "Slanders Against Prohibitionists Refuted," would fill about thirty or more pages of this paper. The price will be 25 cents per copy or 20 cents each for any orders for over 100 copies.

## Carnegie Wrought Steel Wheels meet your requirements for industrial service



The enormous pressure under which Carnegie Wrought Steel Wheels are forged insure that

### Carnegie Wheels are Safe

There is no possibility of blow holes, sand spots and other irregularities that cause failure. The metal is of a ductile (not brittle) character.

### Carnegie Wheels give Service

In addition to forging under high pressure, the steel is thoroughly worked and rolled, resulting in a solid, homogeneous structure that resists wear.

The wrought steel wheel has distinct advantages for industrial purposes, particularly under heavy loading conditions in yards around mills, blast furnaces, etc. It is invaluable for use under ingot cars on account of its great strength—also under hot metal ladles, as splashed molten metal cannot affect the integrity of the wheel.

Consult with our engineers. It will oblige you in no way.

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General Offices · Carnegie Building · 434 Fifth Avenue

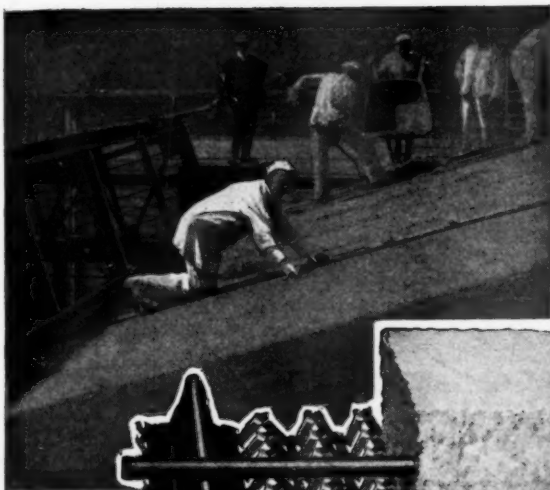
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PENNSYLVANIA



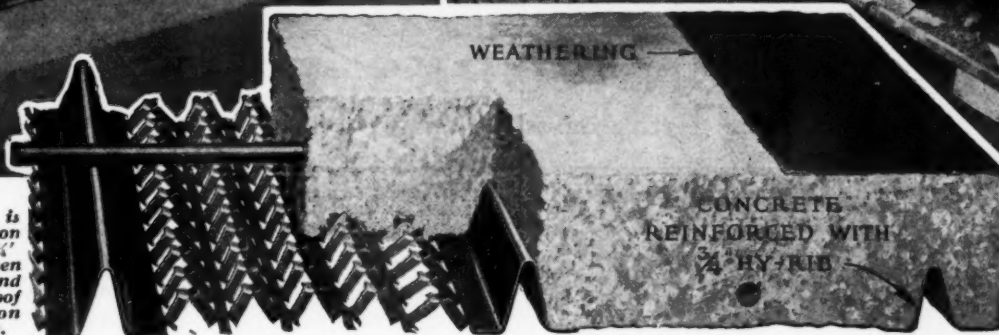
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Truscon  $\frac{3}{4}$ " Hy-Rib is easily and quickly applied without any special experience.

Concrete is poured upon Truscon  $\frac{3}{4}$ " Hy-Rib. When smoothed and set your roof construction is complete.



You need no wood forms with Truscon Hy-Rib. The experience of erecting and taking down forms is strictly eliminated.

## Substantial Construction at Lower Cost

The roof and walls of your new building will cost you much less and give you permanent satisfaction if you build with Truscon  $\frac{3}{4}$ " Hy-Rib. You get good, solid concrete construction that grows harder with age. You get speedy erection. You get economy through time and material saved. Truscon Hy-Rib needs no forms. It is both form and reinforcement in itself. Learn more about this economical way of building. Inquiry does not obligate you in the slightest.

*Write for data book and information*

**TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO**

Warehouses and Sales Offices in Principal Cities  
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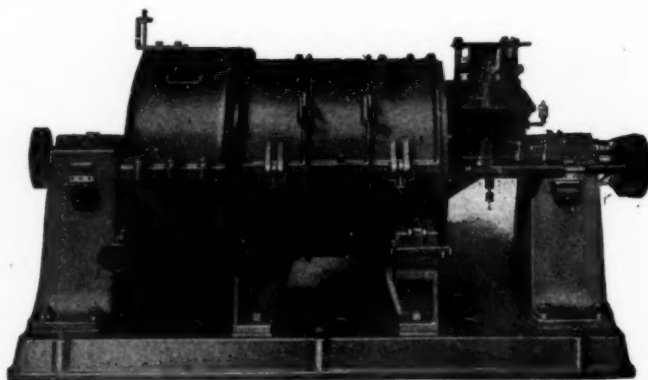
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TRUSCON STEEL CO.

## $\frac{3}{4}$ " HY-RIB

## \$54.79 PER DAY OFF THE COAL BILL

And the reduction in labor cost is not included in this figure. Such a saving on the coal bill alone should justify an acquaintance with the



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also: **BOILERS, ENGINES  
FABRICATED STEEL WORK  
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*Send for test reports  
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(Established in 1840)



LOW BODY DUPLEX  
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### HUNT CUT-OFF VALVES or GATES

For controlling flow of coal, broken stone, sand, etc., from storage bins to mechanical stokers, mixers or cars. Cut shows a low body duplex valve with outside flanges particularly suitable for ash hoppers. They are heavily built and are not quickly burned out.

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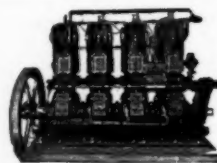
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WEST NEW BRIGHTON, N. Y. C.

New York Office: Whitehall Bldg.

3-24

A B C By-Product Foundry Coke  
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LOWEST IN ASH      LOWEST IN SULPHUR  
"Alabama's Best Coke"  
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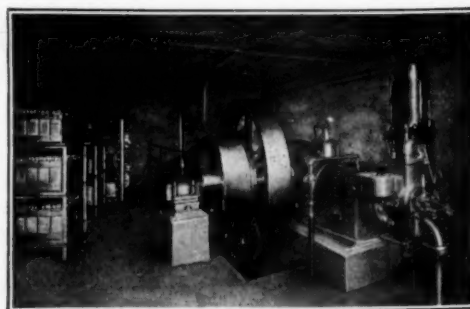


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for every class  
of service

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Oil Engine driv-  
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supplying cur-  
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thru Storage  
Battery at  
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**SIGNIFIES** Long Life, Highest Efficiency, Low Maintenance and Mechanically correct. This accounts for Brownell Boilers being specified by leading Engineers and high class Architects who demand the best.



A Contract means little unless the concern with which you are dealing is one of known reliability. The Brownell Company with its 68 years of experience as manufacturers of **QUALITY PRODUCTS** has 68 years of reputation to maintain, therefore, you take no risk in sending us your order.

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Established 1855

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4 H. P. to 80 H. P.

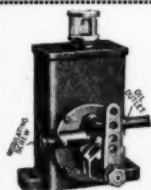
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with all its many advantages, will be realized to the full, by installing on steam engines, steam pumps, air and ammonia compressors, etc.

### Practical Force-Feed Oil Pumps

Guess-work entirely eliminated; oil bills reduced 30 to 50 per cent.

Write for Bulletin No. 30 and get our prices.

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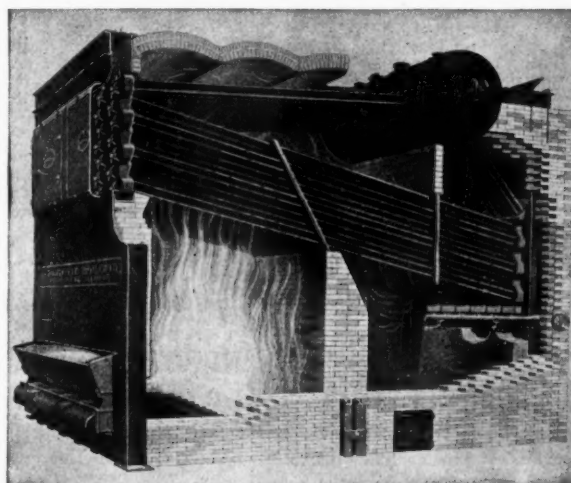
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**BIRMINGHAM, ALA.**

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**SECTIONAL—ALL STEEL**

**NO STAY BOLTS—NO BENT TUBES**

**ONE HAND HOLE COVERS FOUR TUBES**

**SIZES TO 3000 H. P.—PRESSURES TO 500 LBS.**

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**Builders since 1868 of**  
**Water Tube Boilers**  
**of continuing reliability**

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CLEVELAND, Guardian Building  
CHICAGO, Marquette Building  
CINCINNATI, Traction Building  
ATLANTA, Candler Building  
PHOENIX, ARIZ., Heard Building  
DALLAS, TEXAS, 2001 Magnolia Building  
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Barberton, Ohio

**Makers of Steam Superheaters**  
**since 1898 and of Chain Grate**  
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LOS ANGELES, 404-6 Central Building  
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**"Don't forget  
the tempera-  
ture, my boy!"**

He won't forget it—not for a single minute—when the Columbia Recording Thermometer, with the TIME PUNCH, is

back of him. The TIME PUNCH is the boss tapping him on the shoulder. It is a constant reminder to him to keep a watchful eye on the temperature in any heat-treat process.

The red line on the recording chart shows the temperature fluctuations over a twenty-four hour period, written indelibly in ink. The TIME PUNCH shows whether the man in charge of temperature control has watched these fluctuations.

If the little punch holes don't appear on the edge of the disc, it means that he has neglected to "ring up."

If they are there—and at the same time the temperature line runs "wild"—he has fallen down on the job.

But that's the very thing you won't have to worry about any more for with this double check-up against him, there is small chance that the man in charge of heat-control will forget or neglect his duties.

By fixing the responsibility definitely in event of negligence, the Time Punch prevents negligence, and in so doing guards against heavy losses.

A postcard brings our Catalog H-8.

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**Columbia** RECORDING  
THERMOMETERS

## The Babcock & Wilcox Tube Co.

(Pittsburgh Seamless Tube Co.)

Manufacturers of

**SEAMLESS**



**STEEL TUBES**

**For Stationary, Locomotive and  
Marine Boilers**

For over twenty years, the Company's mills have been making high grade tubes for Babcock & Wilcox boilers. The same careful selection of raw materials, close supervision of manufacture and rigid final inspection are followed whether the tubes are made for Babcock & Wilcox boilers or for any other purpose.

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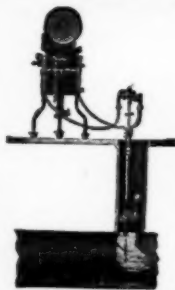
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**SIMPLICITY  
SERVICE  
SATISFACTION**

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Bulletin 30 tells the story

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Southern Representative: W. J. Neville, Candler Bldg., Atlanta, Ga.

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Curved or Straight—Immediate Delivery

**Boiler Tube Co. of America**

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Makers of the Boiler Tube Company Flat Suspended Arch

## The Walsh & Weidner Boiler Co.

Manufacturers of

Forged Steel Sectional Header Boilers, Box Header Boilers, Return Tubular Boilers, Steel Tanks, Special Steel Plate Construction

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**Brass and Copper  
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**BALTIMORE, MD.**

**ENGINES BOILERS  
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If you are in the market for the above, get our prices. We are Southern Manufacturers, and not only manufacture, but guarantee our products. We want you to take advantage of our 50 years' experience.

Write us for further information  
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**SCHOFIELD'S IRON WORKS**

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ATLANTA, GA.

**MACON, GA.**

310 Krause Building  
TAMPA, FLA.





## 4 *Centering Billets to be pierced for Seamless Boiler Tubes*

AFTER the bloom has been rolled into a long, solid "round" or "billet" it is sawed into short lengths—each of which contains just enough metal for the length, thickness of wall, and diameter of tube desired. While still hot, the billets are conveyed to the centering machine where an indentation about one inch deep and conical in shape is made in one end.

The countersink or cavity thus produced insures proper starting of the hot billet in the piercing operation, permits insertion of the piercing point at its most effective position in relation to the piercing rolls, and makes for an equalized displacement of metal from the center of the billet.

While centering the billet is one of the short operations in making a seamless tube, the mechanical precision with which it is performed has a far-reaching effect upon the operations which follow, and is another of the many steps in the manufacture of "NATIONAL—SHELBY" Boiler Tubes which are given very close attention to insure a uniform, high grade finished product.

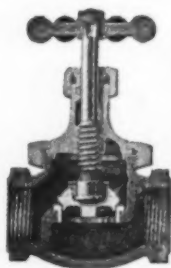
Other steps in the manufacture of "NATIONAL—SHELBY" Seamless Boiler Tubes will appear here soon. For the complete story, write for a copy of "NATIONAL" Bulletin No. 12

**NATIONAL TUBE COMPANY, PITTSBURGH, PA.**  
DISTRICT SALES OFFICES IN THE LARGER CITIES

**NATIONAL SEAMLESS  
BOILER TUBES**

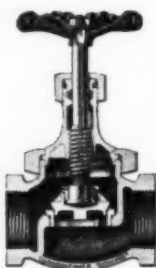
**(SHELBY)**

## Keep Down The Cost Of Upkeep!



Iron Body  
"Ferrenewo"  
150 lb. W. S. P.  
Union Bonnet  
1/4 to 2 in.  
Outside Screw  
and Yoke  
2 1/2, 3 and 4 in.

Standardize on Lunkenheimer Iron Body "Ferrenewo" for the lower pressures, and Bronze "Renewo" for the higher pressures. The low maintenance cost insures maximum economy.



Bronze  
"Renewo"  
Medium 200 lb.  
W. S. P.  
Extra Heavy  
300 lb. W. S. P.  
Union Bonnet  
1/4 to 3 in.  
Outside Screw  
and Yoke  
1 1/2, 2, 2 1/2 and  
3 in.

There is a Lunkenheimer Distributor near you to serve you. A request for a presentation of an economical valve standardization plan entails no obligation, and will receive prompt attention.

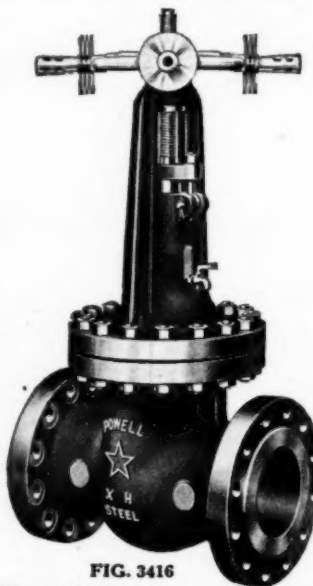
**THE LUNKENHEIMER CO.**

"QUALITY"  
CINCINNATI, OHIO, U. S. A.  
NEW YORK CHICAGO BOSTON LONDON  
EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

102-40-62

## POWELL VALVES

Are Recognized  
**ESSENTIALS OF SAFETY**  
For all Power Installations



### STEEL GATE VALVE

especially designed for superheated steam working pressure up to 400 lbs. and 750° F. total temperature.

Made in all standard sizes and conform directly to the American Steel Flange Standard, developed by the A.E.S.C.

FIG. 3416

THE W. M. POWELL CO.  
DEPENDABLE ENGINEERING SPECIALTIES  
CINCINNATI, O.



## THOMAS True Semi-Steel W. S. D. GRATE BARS

**SAVE** their cost in the amount of fuel saved in a few weeks.

They keep the fire at the highest state of efficiency at all times, never failing, giving more steam.

**ELIMINATE** cleaning periods, grate bar mishaps and shut downs. True Semi-Steel withstands the action of high temperatures several times as long as gray iron.

Write for  
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BIRMINGHAM, ALA.

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Capacity Boring Mill up to 20 ft.  
Lathes up to 62 in. x 25 ft.  
100 Large and Small Machines and Men for New and Repair work.

**LOMBARD IRON WORKS & SUPPLY CO.**  
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## ROBERTS FILTERS FOR CLEAN WATER

Ideally adapted for installation in textile mills; raw water ice plants; laundries, and for all industrial or municipal requirements.

"Write for Descriptive Literature"

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DARBY (PHILA.) PENNA.





Fig. 715  
Jenkins Bronze Fire Line  
Angle Valve



Fig. 352  
Screwed, Jenkins Standard  
Bronze Swing Check Valve



Fig. 108  
Screwed, Jenkins Standard  
Bronze Angle Valve



Fig. 370  
Screwed, Jenkins Standard  
Bronze Gate Valve

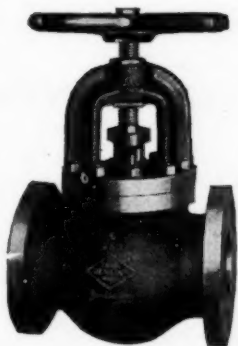
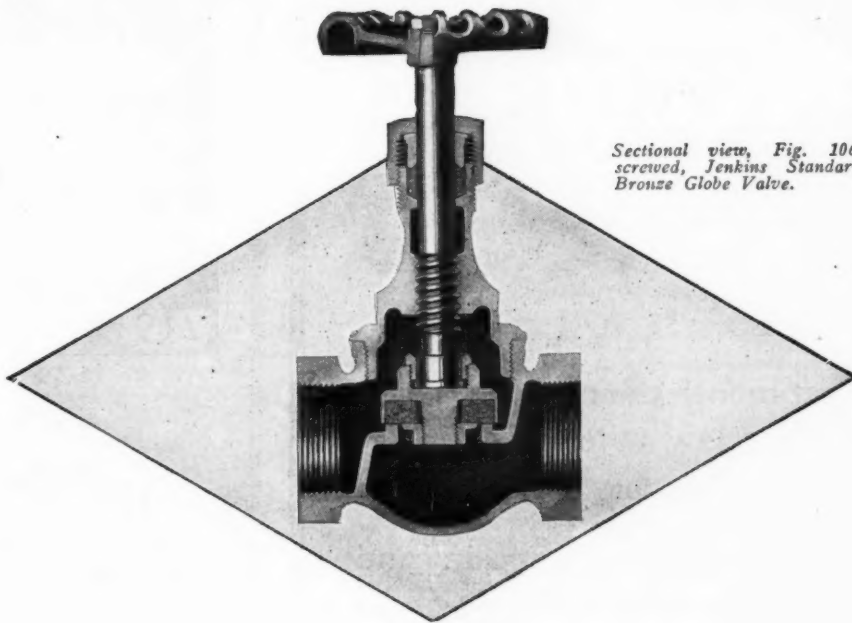


Fig. 162  
Flanged, Jenkins Extra  
Heavy Iron Body Globe  
Valve



Sectional view, Fig. 106,  
screwed, Jenkins Standard  
Bronze Globe Valve.

## Choose a valve the way you hire a worker

A valve is an employee as much as any man who works for you. It can be a worker or a loafer, a helper or a trouble-maker, a husky or an invalid.

No man gets a job unless he has a satisfactory record. It should be the same way with a valve.

A Jenkins Valve wins the job on its record of performance, a 60-year record of high standing with American industry. Instances are not uncommon of Jenkins Valves that have served twenty, thirty, thirty-five years requiring no attention other than the renewal of a disc or other part. The interchangeability of Jenkins parts makes this possible.

Only a strongly built valve could earn such a reputation for reliability. The use of only analyses-proved metals and a rigid system of testing insure in every Jenkins Valve an extra sturdiness that means freedom from frequent repairs and costly replacements.

Jenkins valves are waiting, ready to work for you in any job to which you assign them. At supply houses everywhere.

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FACTORIES:  
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Always marked with the "Diamond"  
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SINCE 1864





Last month the new Roosevelt Hotel, New Orleans, formally opened its doors to the public.

This fifteen story imposing and majestic hostelry represents an investment of \$4,000,000 and is said to be the finest hotel in the Southland.

It is equipped with YORK Mechanical Refrigerating machinery manufactured, installed and guaranteed by the World's largest organization of Refrigeration Engineers.



**YORK** Manufacturing Company  
Ice Making and Refrigerating Machinery Exclusively  
York, Penna.

YORK MFG. CO., York, Penna.

I understand there is a YORK MACHINE for every refrigeration need. Tell me how one will build profits for me. There is no obligation on my part.

NAME .....

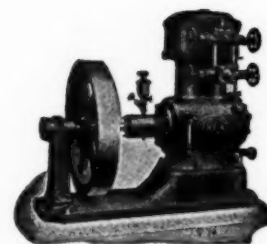
BUSINESS .....

ADDRESS .....



It's no puzzle to the buyer of a refrigerating machine to know where Frick equipment stands.

Investigate for yourself: write for illustrated "Ice and Frost" Bulletins.



*Frick Company*  
WAYNESBURG, PA. U.S.A.  
ICE MACHINES - REFRIGERATING MACHINERY

Distributors in 40 Cities

**WALSH** FIRE BRICK AND SHAPES  
WALSH FIRE CLAY PRODUCTS CO.  
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THE VILTER MANUFACTURING CO.



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Ice and Refrigerating Machinery  
CORLISS ENGINES

ICE MAKING and REFRIGERATING PLANTS

Ammonia Absorption



Ammonia Compression

**COLUMBUS IRON WORKS CO.**  
COLUMBUS, GEORGIA



**ECONOMIZERS**

reduce fuel costs by making use of waste exhaust gases to preheat the boiler feed. Patented construction proven by 20 years of service.

**FOSTER****SUPERHEATERS**

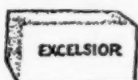
improve engine, turbine and boiler economy by enabling a given amount of steam to do more work. Over 10,000 installations in stationary power plants.

**POWER SPECIALTY COMPANY, 111 BROADWAY, NEW YORK**

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Dependable Clay Products Since 1861

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Office and Works - **BLACKFORK, OHIO**

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Fire Brick**

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Plant:

Mount Savage, Md.

Gen'l Office:  
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into the side walls and door arches at left by ramming up with Ramtite! Below, a finished door arch—not a crack or a joint with Ramtite.

**—and this is the Door Arch  
that RAMTITE built—**

**J**UST because RAMTITE is so handy for quick, lasting patching of furnace settings, do not forget that building new settings, or any part of them, with RAMTITE will end the patching and renewing of linings for a long time to come.

And it is a time saver, too, on new construction, for any man can build your linings with a mallet—note the door arch at the right.

Send coupon for all the facts about this superior, plastic, ready-to-use "barreled fire brick." Write today.

**THE S. OBERMAYER CO.**

2563 W. 18th Street, Chicago, Ill.,  
Established 1874. Factories, or  
stocks carried, in principal cities.

The S. Obermayer Co., 2563 W. 18th St.  
Chicago, Ill.

Please send to my address below, your new 20-page free bulletin with 43 illustrations and valuable data on furnace linings.

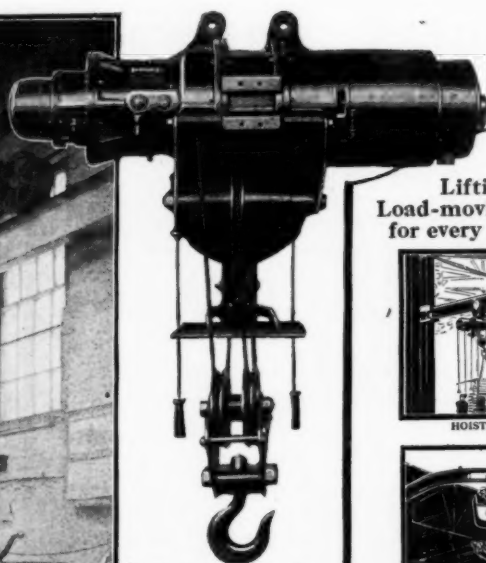
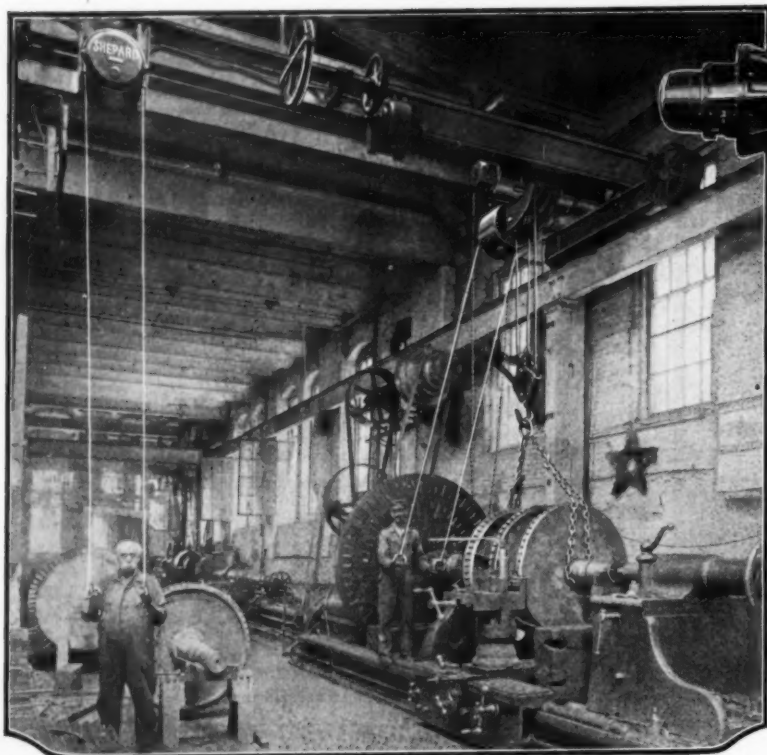
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City ..... State .....

8-15

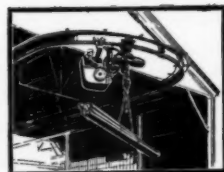


Shepard Form 3  
Lug Suspension  
Hoist, with 4  
parts single hoist-  
ing cable.

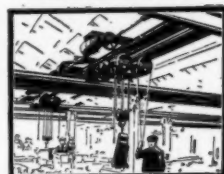
Lifting and  
Load-moving equipment  
for every foundry need



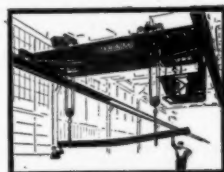
HOISTS TO 10 TONS



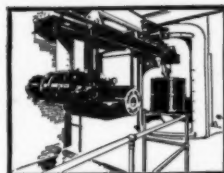
CAGE OPERATED HOISTS



SINGLE I-BEAM CRANES



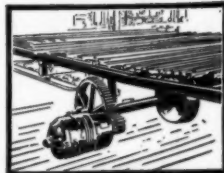
TRAVELING CRANES



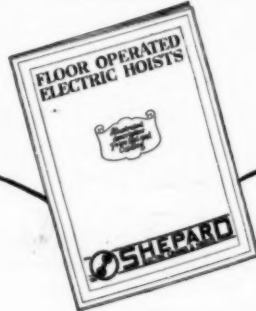
CUPOLA CHARGERS



WINCHES



SPEED REDUCERS



## Most complete line of electric hoists

You can have a Shepard Electric Hoist that meets precisely the requirements of your business—a hoist to suit the building in which it is to be installed, a hoist particularly adapted to handling the loads you want to lift and move.

Shepard Hoists are made in a comprehensive range of standard types. Each has the Shepard "Balanced Drive," enclosed unit construction, oil bath lubrication and other fea-

tures contributing to consistent performance and low maintenance. Each is a *proven* hoist unit with a quarter century's hoist-building experience behind it—from the pioneer days of electric hoists.

Shepard performance is not speculative. It is a known quantity, on which the user can depend. This reliability has made Shepard the largest manufacturer of electric hoists in America.

Write for books about our electric hoists, cranes, winches and speed reducers.

SHEPARD ELECTRIC CRANE & HOIST CO.

362 Schuyler Ave., Montour Falls, N. Y.

Branches in Principal Cities

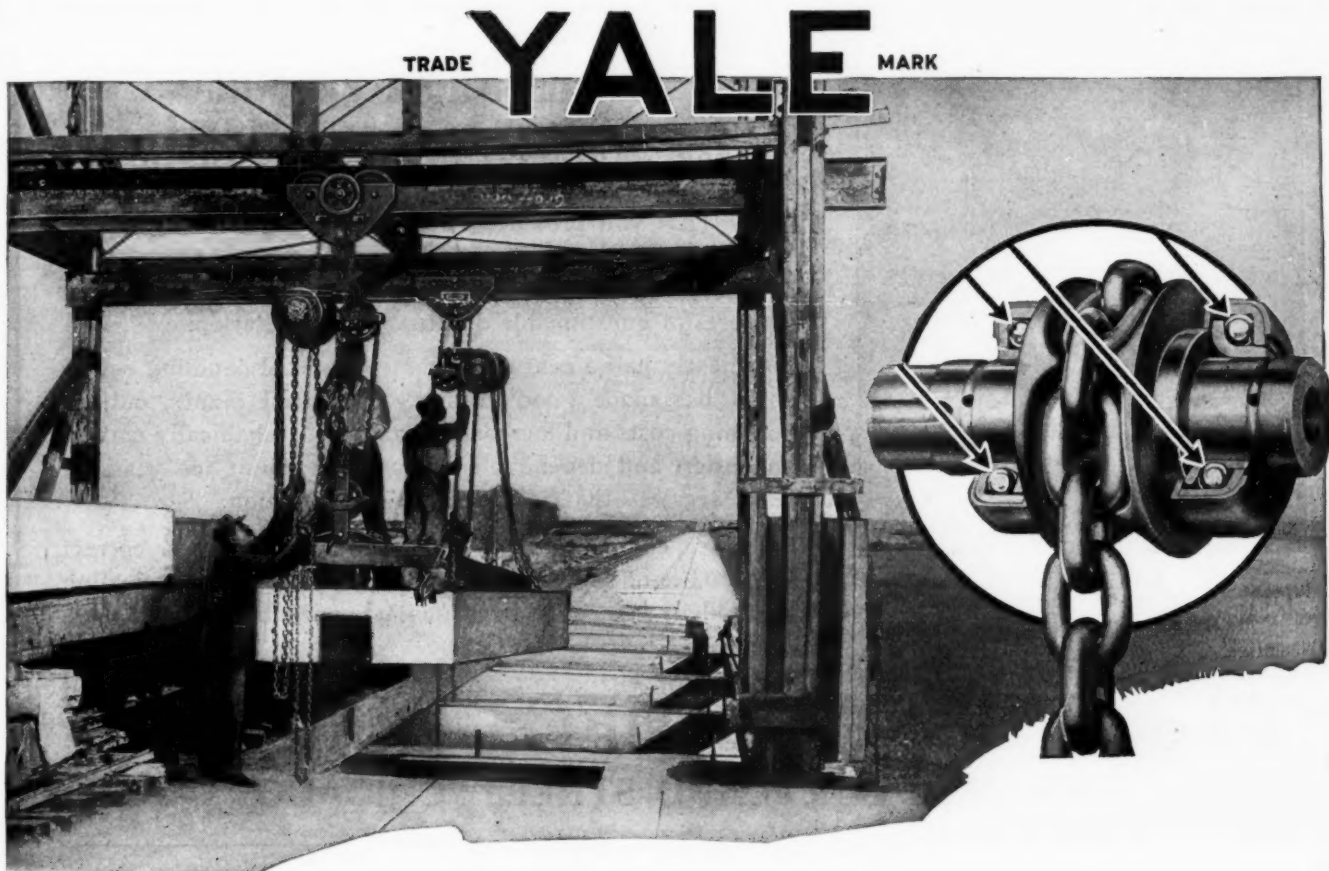
# SHEPARD

ELECTRIC CRANES & HOISTS

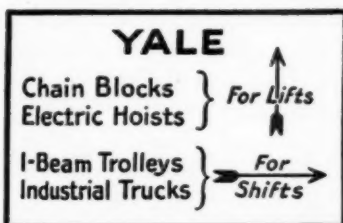


Largest Manufacturer of Electric Hoists in America





## Half a Car-load on two Yale Blocks!



Yale Material Handling Equipment includes Spur-Gear, Screw-Gear and Differential Chain Blocks, Electric Hoists, I-beam Trolleys, Overhead Crane Equipment, and Electric Industrial Trucks, Tractors and Trailers.

**Factory Locking Equipment**—To acquire locking control, security and convenience throughout the factory, use Yale Master Keyed Locks.

Yale Chain Blocks were selected to unload and place these enormous concrete slabs for the foundation of a California viaduct,  $2\frac{1}{2}$  miles long.

The slabs were brought to the job on heavy railroad flat cars—two slabs to the car. Two Yale 5-ton Spur-Gear Chain Blocks, suspended from Yale I-Beam Trolleys on an overhead traveller, easily raised the slabs as received, transported and placed them in position—accurately; and with the minimum of time and manpower.

Speed and safety were the essentials—and speed and safety were secured in Yale.

Wherever the unexpected overload must be handled by a chain block, there you will find Yale supreme.

Yale Chain Blocks can be depended upon to give maximum service. The rigid system of inspection throughout every stage of manufacture, culminating in the final overload test of every Yale Block, assures it. And the Yale chrome-vanadium Ball Bearing Load Sheave greatly reduces the hand chain pull required, and makes the Yale Spur-Gear Block the most efficient on the market.

Yale as the pioneer manufacturer, has been the originator of every notable improvement in chain block construction for the past 50 years.

The Yale & Towne Manufacturing Co.

Stamford, Conn., U. S. A.

YALE MARKED IS YALE MADE



### Hoisting and Conveying Systems





**Belt Conveyor Handling Coal  
in a Steel Plant**

## Enduring Satisfaction with Webster Material Handling Equipment

**W**HEN you provide Webster material handling equipment for your plant, you get a service of known value. You are not speculating on unusual, untried construction features of questionable durability and operation.

For nearly half a century Webster material handling equipment has made good in many industrial plants, cutting handling costs and increasing profits. Mechanically correct in design and dependable in operation, built for years of hard service—that means lasting satisfaction.

Webster engineers have given years of study to correct material handling methods and can ably assist in selecting equipment to meet your particular requirements. Let them help you.

## The WEBSTER MFG. COMPANY

4500-4560 CORTLAND STREET, CHICAGO

*Southern Representatives*

Atlanta, Ga. Fulton Supply Co. 70 Nelson St. Birmingham, Ala. G. R. Mueller Brown-Marx Bldg. Knoxville, Tenn. Webster & Co. Holston Bank Bldg. Louisville, Ky. E. D. Morton & Co. 516 W. Main St. Memphis, Tenn. E. C. Atkins & Co. Maine & Butler Sts. New Orleans, La. Globe Sup. & Mch. Co. 625-627 S. Peters St. St. Louis, Mo. Menner & Kimball St. Syndicate Trust Bldg.

**The Utmost in Hoisting Efficiency**

**WRIGHT**

**HIGH-SPEED HOISTS**

WRIGHT MANUFACTURING COMPANY  
Lisbon, Ohio, U. S. A.

**CRANES and ELECTRIC HOISTS**

"Load Lifter" Electric Hoists  
500 Pounds to 5-ton capacity  
Standardized Heavy Duty  
Electric Traveling Cranes  
Send for Catalogues

**ALFRED BOX & COMPANY, INC.**  
Witte and E. Ontario Sts., Philadelphia, Pa.

**Vogt**

**PRODUCTS**

REFRIGERATING AND ICE  
MAKING MACHINERY—  
WATER TUBE & HORIZONTAL  
RETURN TUBULAR BOILERS  
DROP FORGED STEEL VALVES  
& FITTINGS—OIL REFINERY  
EQUIPMENT—Ask for Bulletin.

**HENRY VOGT MACHINE CO., Manufacturers, Louisville, Ky.**

**EFFICIENT DEPENDABLE  
RUGGED**

**CHESAPEAKE CRANES**

Chesapeake Iron Works

Baltimore — Maryland

**"ANYTHING IN SPRINGS"**

is just one of our sayings. Another is — **RAYMOND Wire SPRINGS** give highly efficient, dependable, economical and long lived service.

Let our Engineering Department consult with you about your spring problems.

**RAYMOND MANUFACTURING CO.**  
Corry, PENNA.

**TRIBLOC CHAIN HOIST**

Send for  
Catalog 6-B

**Ford Chain Block Co., 2nd & Diamond Sts., Philadelphia, Pa.**

# RUBBER **WIRE** COVERED

## AMERICORE

*N. E. Code Stranded*

This rubber has all the desirable qualities of a new code wire. It is a high grade compound, meeting all National Electrical Code requirements and can be recommended for all service conditions in which the working pressure is 7000 volts or under.

## AMPARAK

*Intermediate Grade*

This is a high grade of compound made to suit the demand of engineers, architects and contractors desiring something better than the National Code Wire.

## AMERITE

*30% Para Rubber*

This brand contains only the best grade of pure 30% Para rubber and is used for high voltage circuits. This makes an unsurpassed dielectric for all high voltages and for exacting service conditions; it has great strength and elasticity, high insulation qualities and long life.

## AMERICAN STEEL AND WIRE COMPANY

BALTIMORE SALES OFFICE

Sales Agent  
W. H. JENNINGS

32 S. Charles St., BALTIMORE, MD.



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With two close-by warehouse stocks of the "TRUMBULL" line, we are admirably prepared to supply Switches with every safety feature. Motor Starting, Meter Service and externally operated Entrance Switches.

Write or Wire  
Your Needs!

## Sturtevant Electric Motors

FOR ALL PURPOSES

Direct and Alternating Current  
Single and Polyphase  
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*Anderson's, Inc.*  
**MOTOR REPAIR WORKS**

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NEW AND REBUILT MOTORS  
Nashville, Tennessee

*There is MORE POWER in*  
**THAT GOOD GULF GASOLINE  
AND SUPREME AUTO OIL**

*Look for the Sign  
of the Orange Disc*

GULF REFINING CO.



## ABolites for Adaptability and Economy



Showing ease of removing Reflector from Two-Piece ABolite by simply compressing Spring in Neck.

An adaptable shade holder which will accommodate several different types of reflectors is a distinctive ABolite feature.

Adaptability of ABolites means an interchangeability of Reflectors for obtaining the proper illumination for practically every need.

Moreover it means dollars and cents to you to have lighting equipment that is flexible enough to keep abreast the changing conditions in your shop at a minimum cost.

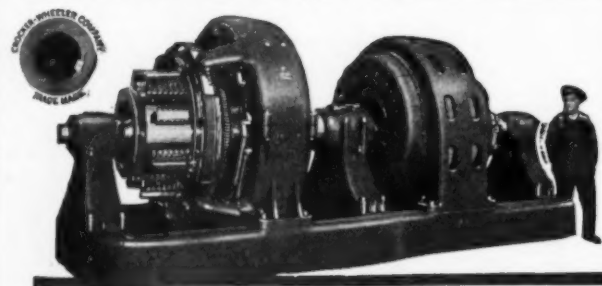
All in all, ABolites mean adaptability, plus service, plus economy.

*Let us tell you more about them. Write for Catalog M-178*

**The National Screw & Mfg. Co.**  
AB Products Division CLEVELAND, OHIO

RELIABILITY

## CROCKER-WHEELER



THE above photograph shows a Crocker-Wheeler Motor-Generator Set consisting of a 1400 K. V. A., 2200 Volt, 60 Cycle Synchronous Motor driving a 1000 K.W., 250 Volt, D. C., 720 R. P. M. Generator—recently built for the Pittsburgh Steel Products Co., Pittsburgh, Pa.

We are prepared to furnish D. C. and A. C. Motors from  $\frac{1}{2}$  H. P. up and D. C. and A. C. Generators and Motor-Generator Sets from 100 Watts up.

### IMPORTANT NOTICE

Effective November 1, 1925, the name of the Crocker-Wheeler Company was changed to Crocker-Wheeler Electric Manufacturing Co.

CROCKER-WHEELER ELECTRIC MFG. CO.  
AMPERE, NEW JERSEY

Branch Offices in Principal Cities.

2030-34

## MOTORS & GENERATORS

REWINDING ELECTRICAL  
PAIRING BUILDING MACHINERY

OUR specialty is rebuilding and long experience has made us experts at judging the repairs needed to make old equipment new.

The experience gained in more than a quarter of Century repairing and rebuilding together with the best apparatus to be had for handling and listing high grade electric equipment qualifies us to serve you satisfactorily and efficiently.

Send it to us. We ship it back like new. Surprising the amount of money we can save you on equipment in a year's time.

**Chattanooga** ARMATURE WORKS.  
Chattanooga, Tenn.

New and rebuilt motors for sale



# ***Your Plant Needs Correct Lighting— not just More Light!***

More electric light in your plant is not sufficient. Scientifically controlled light, of proper intensity, proper quality and direction is an absolute necessity if the highest production, combined with reduced spoilage and lowered overhead is to be realized. There is only one correct lighting solution for your plant.

Benjamin Industrial Lighting Equipment has been the key to this attainment in thousands of industrial plants. It is turning electric light current into profit dollars in plants whose problems compare favorably with yours.

Lighting specialists with our distributors all over the country, experienced in problems such as yours, will gladly cooperate with you. The new Benjamin Catalog on Lighting Equipment will be an invaluable help to you in solving any contemplated change in your lighting installations. Address the nearest office for immediate service.

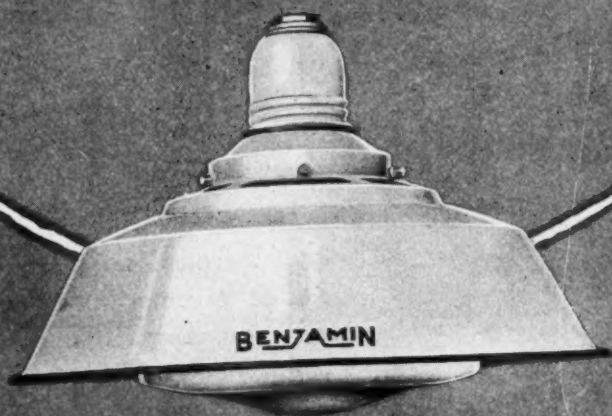
## **Benjamin Electric Mfg. Co.**

247 W. 17th St.  
New York

120-122 S. Sangamon St.  
Chicago

445 Bryant St.  
San Francisco

Manufactured in Canada by the Benjamin Electric Mfg. Co.  
of Canada, Ltd., Toronto, Ontario



### ***Glassteel Diffuser***

The Benjamin Glassteel Diffuser combines the RLM Porcelain Enameled Steel Reflector with a Glass Diffusing Globe. A small amount of light breaks upward to softly illuminate the ceiling. The glass diffuser is protected from breakage by the steel reflector. The exceptionally attractive appearance of the Glassteel Diffuser makes it suitable for schools, offices and light manufacturing plants.



R L M



ELLIPTICAL ANGLE



TYPE RR THREADED  
FIXTURE

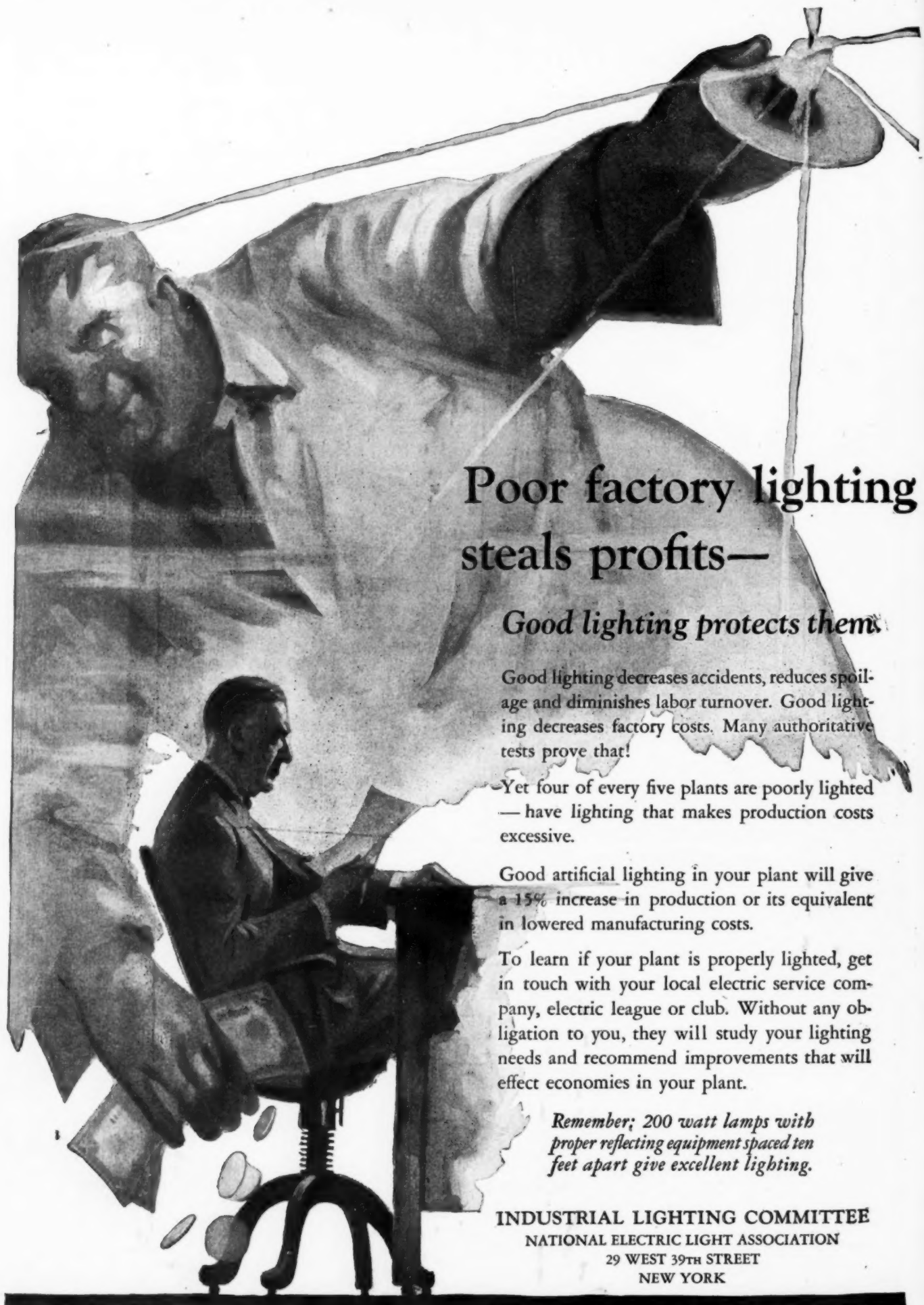


GLASSTEEL DIFFUSER



BEN-OX CEILING UNIT

**Super  
Equipment  
for  
Correct  
Industrial  
Lighting**



## Poor factory lighting steals profits—

### *Good lighting protects them.*

Good lighting decreases accidents, reduces spoilage and diminishes labor turnover. Good lighting decreases factory costs. Many authoritative tests prove that!

Yet four of every five plants are poorly lighted — have lighting that makes production costs excessive.

Good artificial lighting in your plant will give a 15% increase in production or its equivalent in lowered manufacturing costs.

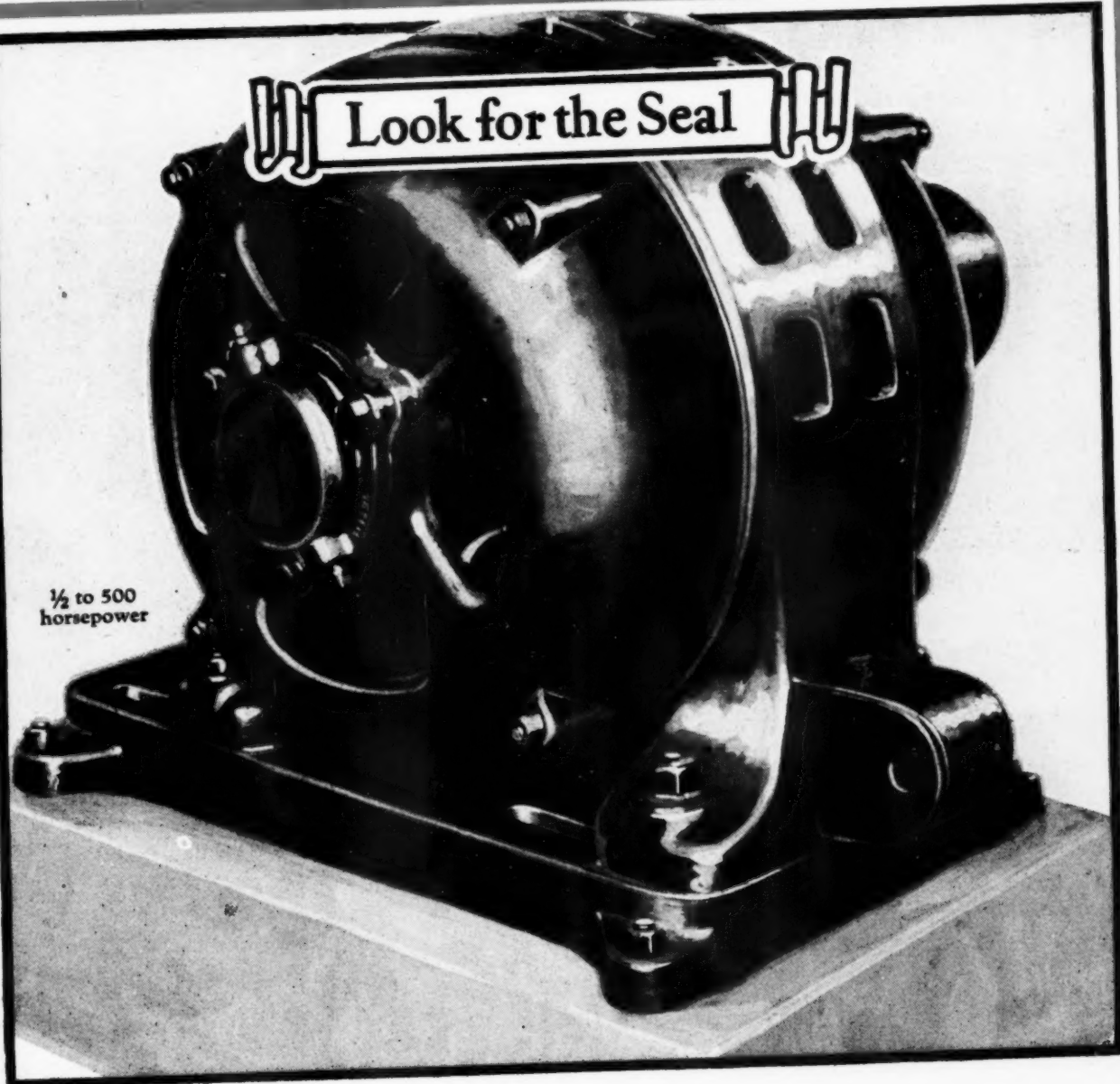
To learn if your plant is properly lighted, get in touch with your local electric service company, electric league or club. Without any obligation to you, they will study your lighting needs and recommend improvements that will effect economies in your plant.

*Remember; 200 watt lamps with proper reflecting equipment spaced ten feet apart give excellent lighting.*

**INDUSTRIAL LIGHTING COMMITTEE**  
NATIONAL ELECTRIC LIGHT ASSOCIATION  
29 WEST 39TH STREET  
NEW YORK



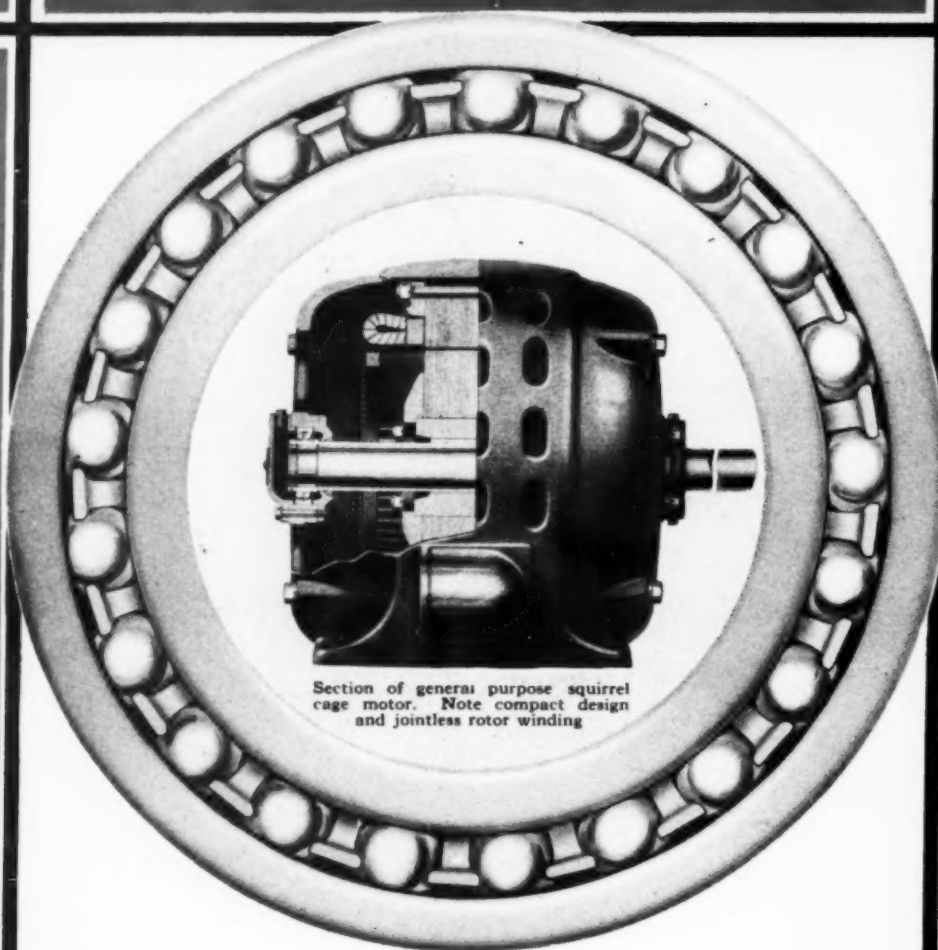
# FAIRBANKS-MORSE



*Pioneer Manufacturers*  
OF  
**ball bearing motors**







Section of general purpose squirrel cage motor. Note compact design and jointless rotor winding

## Many types—one quality

The wide range of alternating current motors, illustrated here, have one all-essential thing in common—*advanced design expressed in quality construction.*

Throughout, these motors are built to serve—under all conditions—*continuously.* The tightly housed bearings exclude dirt and grit. Insulation that does not become brittle with age; short, rigid shafts that minimize vibration, and rugged frames that “stay put,” have set a new standard of motor reliability and efficiency.

A letter to Fairbanks, Morse & Co., 2060 Northwestern Ave., Indianapolis, Ind., will bring complete bulletin information

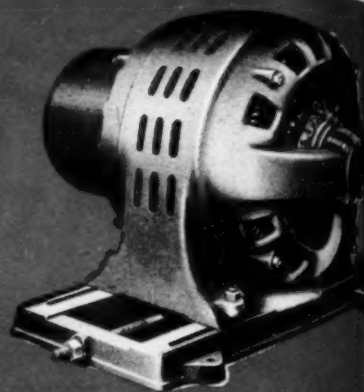
**FAIRBANKS, MORSE & CO., Chicago**

Manufacturers of Electrical Machinery,  
Oil Engines and Pumps

25 Branches throughout the United States at your service

# FAIRBANKS-MORSE motors and generators

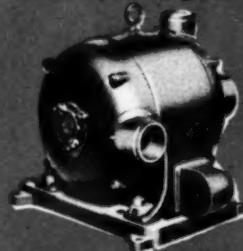
Fairbanks-Morse gave the ball bearing motor to industry



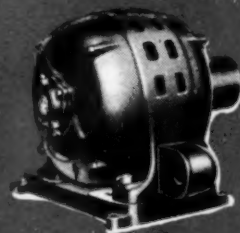
The wound rotor slip-ring motor (Type HV) for continuous service and for use where speed variations are required



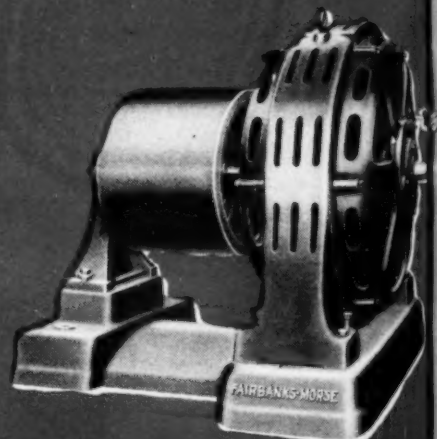
The vertical shaft ball bearing squirrel cage motor (Type U H A) for continuous constant speed and general service



Fully enclosed, self-ventilated squirrel cage motor (Type E H) for avoiding danger and damage from inflammable or gritty dust



Type H Ball-Bearing motor, general service. Constant speed



Synchronous motor (Type SRT) for applications where constant speed with high or adjustable power-factor is required

# Rex Temperim Sprockets



Cross-section showing depth of chill



## That Make Good Chain Work Better

Rex Temperim Sprocket wheels have the teeth and rim hardened to provide a wearing surface of a tougher and more durable nature than the ordinary grey iron wheel.

The use of Rex Temperim Sprockets means longer life for both the chain and the sprockets.

The hard, smooth, accurately fitted wearing surface of tooth and rim, free from sand and grit, retains correct shape of tooth and pocket, increasing the efficient life of the wheel. This in turn insures a long life for the chain, as it is at all times running on a sprocket that fits the pitch of the links.

The use of these sprocket wheels also makes for greater power efficiency due to the steady maintenance of accurate pitch and the minimum of friction.

Rex Temperim Sprockets are interchangeable with standard sprockets.

Rex Chain deserves Rex Sprockets. The Rex 210 Catalog lists Rex Sprockets for all Rex Chains. Have you a copy?

# REX CHAIN

CHAIN BELT COMPANY

735 Park Street

Milwaukee, Wis.



At left: strand of REX genuine Chabelco 1030.



Rex Safety Set Collar made of Certified Malleable Iron. Though stronger and more durable, it weighs only about half as much as a cast iron collar.



Rex Malleable Buckets are made in several styles to meet the requirements of elevating practically all bulk materials.



The Chain Belt No. 210 Catalog and Engineering Data Book shown above consists of 512 pages. It lists in detail all information for the ordering and use of Rex Chain, Conveyors and Transmission Machinery.

Chain Belt Company,  
735 Park Street,  
Milwaukee, Wis.

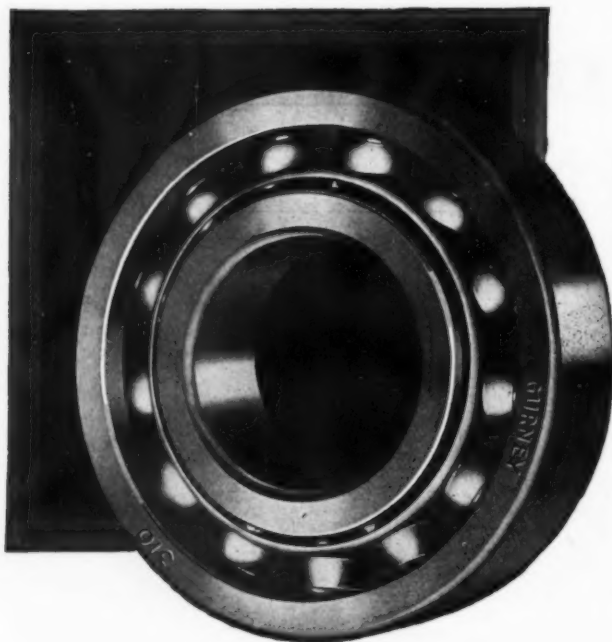
Please send me Temperim Sprockets.

Name.....

Address.....

State.....





## Less Lubricant~ Lower Upkeep Costs

Ball Bearings save from 25% to 50% of the lubricant required for plain bearings. It is necessary to oil ball bearings only once every two or three months, while plain bearings require daily attention.

These savings in lubricant and shop upkeep are only a small percentage of the total savings through the use of ball bearings.

Let Gurney Engineers point out the advantages of ball bearings for your equipment.

### MARLIN-ROCKWELL CORPORATION

*Gurney Ball Bearing Division*

Jamestown, N. Y.

19335  
**GURNEY**  
**BALL BEARINGS**

### Goldens' Foundry & Machine Co. COLUMBUS, GEORGIA

MANUFACTURERS OF

**MACHINE MOULDED PULLEYS  
HANGERS                      SHAFTING**

Couplings, Pillow Blocks, Floor Stands, Collars, Etc.

Send for Price List and Discount Sheet

### BRASS AND BRONZE CASTINGS MACHINE BRONZE

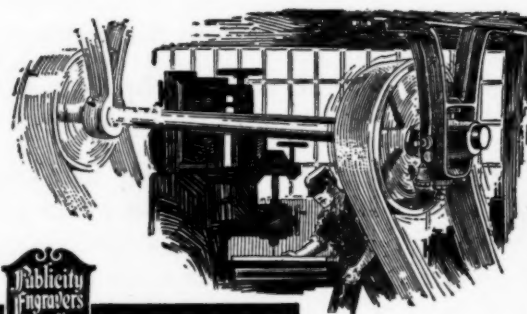
Solid or Cored Bars

Manufacturers of

Moccasin Self-Oiling Bearings

Ask for Catalog

**MOCCASIN BUSHING CO.**  
CHATTANOOGA, TENNESSEE.

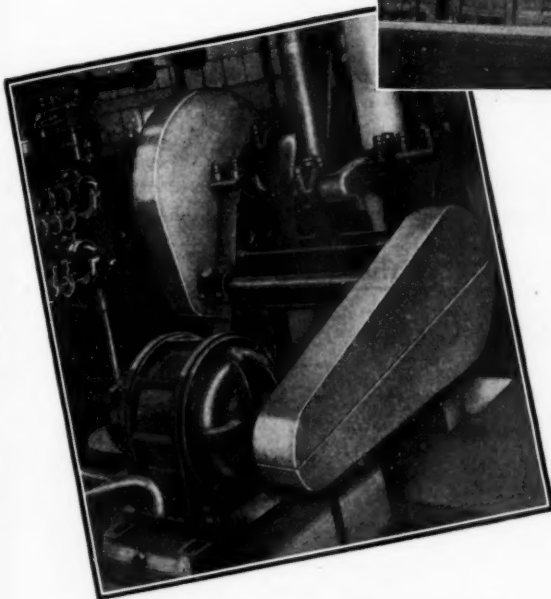


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leaves nothing untold"**

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Designers and - -  
Makers of Engravings  
that give your - - -  
Product Publicity

**Publicity Engravers**  
Incorporated  
Baltimore 9 E. Lexington St. Maryland



**MORSE****DRIVES**

Morse Silent Chain Drive from motor to Goulds Deep Well Triplex Pump, Fig. 1586, supplying well water, at plant of Novia Candy Co., Brooklyn, N. Y.

## Where continuous service is important—

Interrupted service involves serious loss in many industries. Pumping service especially demands reliable power transmission to maintain continuous operation. Leading pump manufacturers equip their product with Morse Silent Chain Drives. Goulds pumps, serving in many industries, are large users of Morse Chains. Of one installation, shown above, the owner writes:

"Both of these pumps have been in continuous daily service since the erection of our plant and they are giving entire satisfaction. The pumps are on the job from morning until night and it is very important that they take care of the work every minute of the day, particularly in the summer time."

More than 4,000,000 H.P. installed in units from  $\frac{1}{4}$  to 5,000 H.P., 6,000 to 250 r.p.m. or slower. Especially effective on short centers.

Consult Morse Engineer at nearest office.

See our exhibit—space 263, 4th National Exposition of Power and Mechanical Engineering. Grand Central Palace, New York City—Nov. 30 to Dec. 5, 1925.

## MORSE CHAIN CO., ITHACA, N. Y., U. S. A.

There is a Morse Engineer near you

ATLANTA, GA., 702 Candler Bldg.  
BALTIMORE, MD., 1402 Lexington Bldg.  
BIRMINGHAM, ALA., Moore-Handley Hdwe. Co.  
BOSTON, MASS., 141 Milk St.  
CHARLOTTE, N. C., 404 Commercial Bank Bldg.  
CHICAGO, ILL., 112 W. Adams St.  
CLEVELAND, OHIO, 421 Engineers Bldg.

DENVER, COLO., 211 Ideal Bldg.  
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LOUISVILLE, KY., 516 W. Main St.  
MINNEAPOLIS, MINN., 413 Third St.  
NEW ORLEANS, LA., 521 Baronne St.  
NEW YORK, N. Y., 50 Church St.

OMAHA, NEB., 727 W. O. W. Bldg.  
PHILADELPHIA, PA., 803 Peoples Bank Bldg.  
PITTSBURGH, PA., Westinghouse Bldg.  
SAN FRANCISCO, CALIF., Monadnock Bldg.  
ST. LOUIS, MO., 2137 Railway Exchange Bldg.  
TORONTO, 2, ONT., CAN., 50 Front St. E.  
WINNIPEG, MAN., CAN., Dufferin St.

662



PULLEYS HANGERS

The **WOOD** Line  
SONS CO.

CLUTCHES COUPLINGS



The "Universal Giant" is a thoroughly modern Friction Clutch complete within itself. It does not require specially constructed appliances to be fitted to it. Any ordinary pulley of proper bore will answer.

**T. B. WOOD'S SONS CO.**  
Chambersburg, Pa.  
CAMBRIDGE, MASS. GREENVILLE, S. C.

Motor Pulleys, Flexible Couplings, Speed Reducers, and the "U. G." Automatic Belt Contactor for Short Center Drives.

**POWER TRANSMITTING MACHINERY**



Trade-Mark

## SAMSON CORDAGE WORKS

BOSTON, MASS.

Mills at Shirley, Mass. and Anniston, Ala.

Manufacturers of braided cord in all sizes, colors and kinds of braid, including

Sash Cord  
Clothes Line  
Awning Line  
Masons' Line  
Shade Cord

Trolley Cord  
Arc Lamp Cord  
Signal Cord  
Dumb Waiter Rope  
Etc.

Special cords for special purposes  
**Glazed Cotton Twine**

All cord bearing the trade-mark of Samson and the Lion is made of extra quality stock, is carefully inspected, and is guaranteed free from imperfections of braid or finish.

### Samson Spot Cord



Trade-Mark Reg. U. S. Pat. Off.

**Strand**

Flexible Shafts and Equipments

"Trade Mark Registered"

Flexible shaft equipments for grinding, polishing, drilling, rotary filing, scratch brushing, power screw driving and nut setting.

Write for circulars and prices.

**N. A. STRAND & CO.** 5001-5009 N. Lincoln St. Chicago, Ill.

(Established 1855)

**A. K. ROBINS & COMPANY**  
CANNING MACHINERY AND SUPPLIES  
For Fruits, Vegetables, Sea Food, Etc.

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116 MARKET PLACE BALTIMORE, MD.  
"IF IT'S FOR A CANNING FACTORY, WE HAVE IT"

**BALTIMORE BELTING CO.**

Manufacturers of  
OAK TANNED LEATHER BELTING,  
LACED LEATHER AND SUPPLIES  
BALTIMORE, MD.

**TEST SPECIAL RUBBER BELTING**

Reduces your power transmission costs  
Write for Belt Engineering Booklet

**NEW YORK BELTING & PACKING CO.**  
NEW YORK-CHICAGO-PHILADELPHIA-PITTSBURGH-BOSTON-ST. LOUIS-SAN FRANCISCO

For Efficiency Always

**CHESAPEAKE STITCHED CANVAS BELTING**

Manufactured from 32-oz. duck and designed to give the best results in actual service. Made for all conditions of power transmission—inside or outside—wet or dry. Chesapeake Belting has been giving satisfactory service for over 30 years.

Write for printed matter.

**CHESAPEAKE BELTING CO.**  
BALTIMORE, MD.



**U. S. Oak Tanned Leather Belting**

Having our own belt shop, we can guarantee our product and our deliveries.

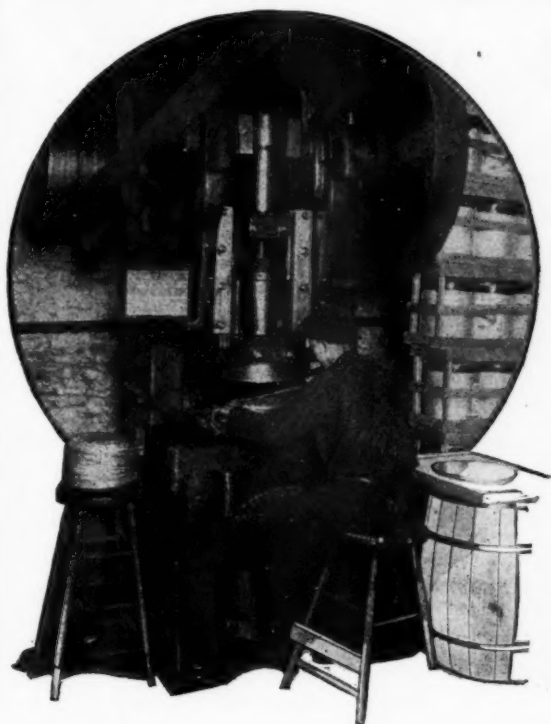
**Hippo Waterproof Leather Belting**

Unexcelled for use in damp and steamy places.

BELTING CEMENT and DRESSING  
OLD LEATHER BELTING RENOVATED and MADE OVER

MILL SUPPLIES, TOOLS and MACHINERY  
Large and Complete Stocks

**REED & DUECKER, Memphis, Tenn.**



## Rapid can production—

*an example of Bliss performance*

This Bliss No. 46 Consolidated Type Press draws tops for round 5-gallon oil cans from 24-gauge galvanized steel at the rate of 400 per hour. Additional Bliss Presses do similar speedy work on other operations in the manufacture of these cans—one of a long list of sheet metal products made with Bliss equipment. Whatever the type or extent of your sheet metal operations, Bliss equipment will do the work quickly, accurately, and economically. Let Bliss give you recommendations.

**BLISS** *for* **MACHINERY**

# BLISS

**E. W. BLISS CO.**

**MAIN OFFICE  
AND WORKS**

**BROOKLYN, N. Y., U. S. A.**

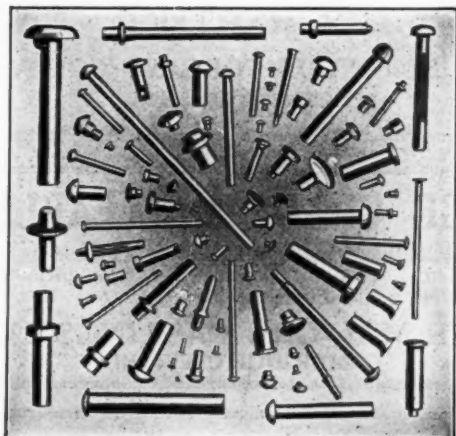
**Sales Offices:** DETROIT, CLEVELAND, CHICAGO, PITTSBURGH, CINCINNATI, NEW HAVEN, ROCHESTER, PHILADELPHIA  
Genl. Motors Bldg. Guarantee Title Bldg. London Guar. & Accident Bldg. Oliver Bldg. Union Trust Bldg. 2d National Bank Bldg. Times Union Bldg. Pennsylvania Bldg.

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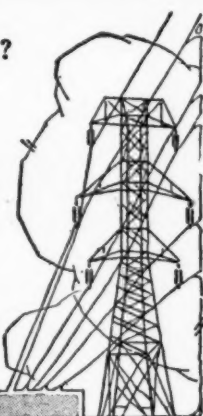
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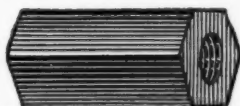
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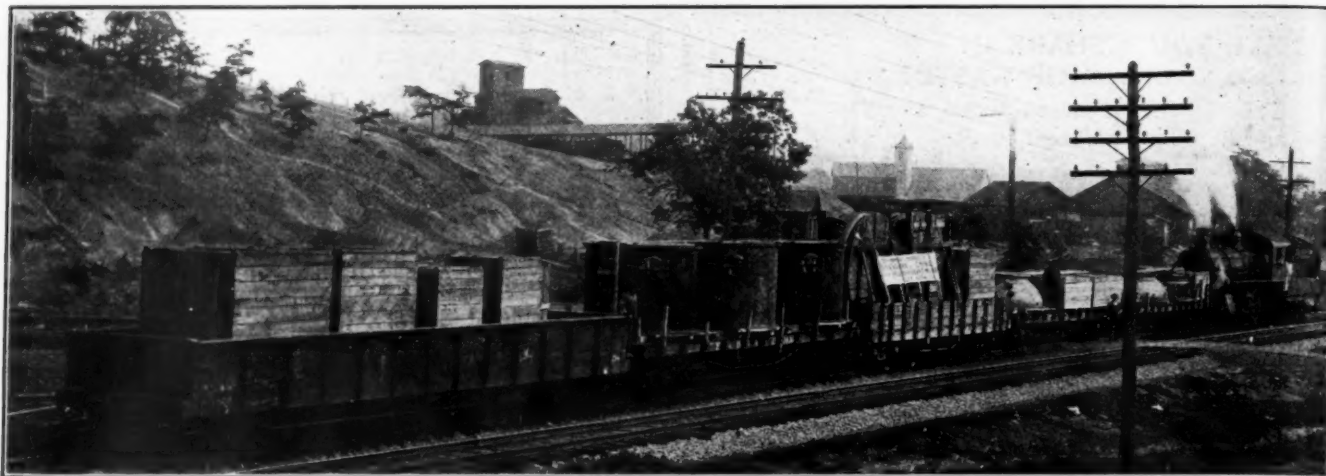
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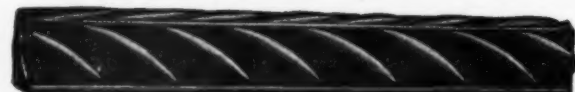
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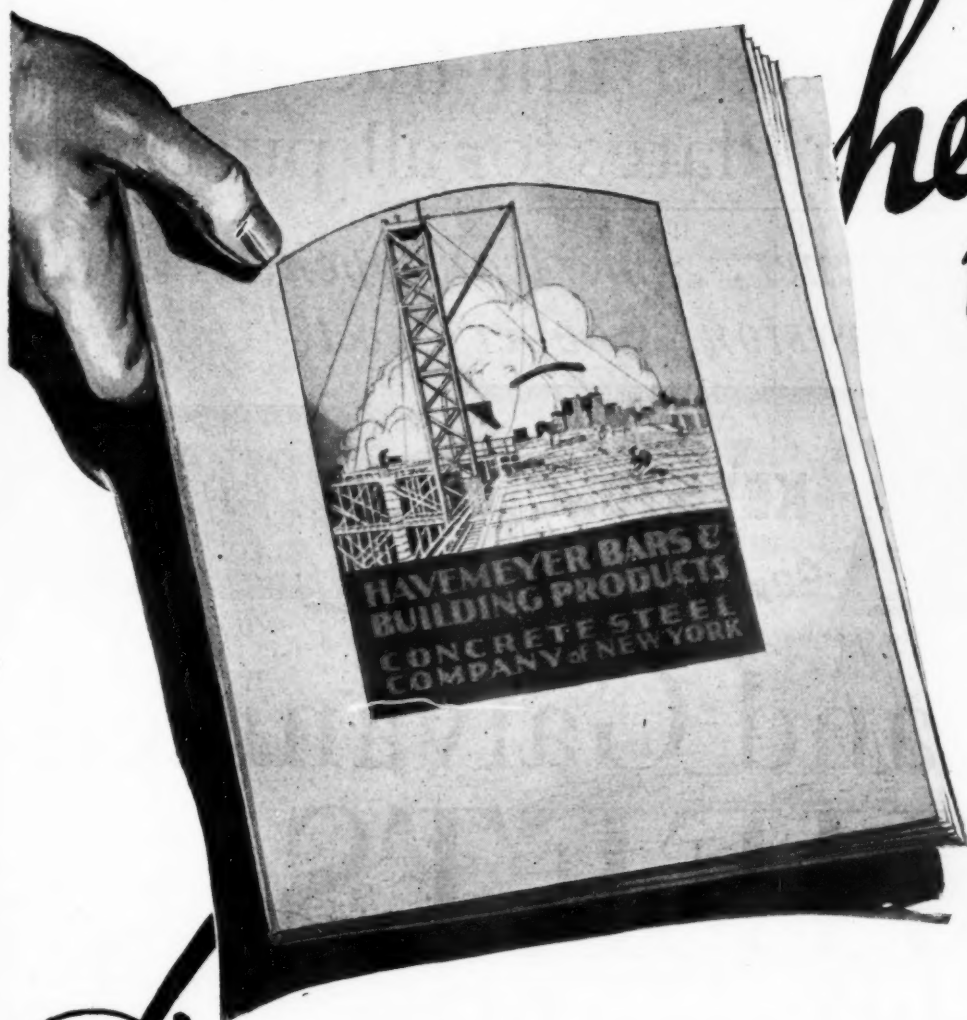
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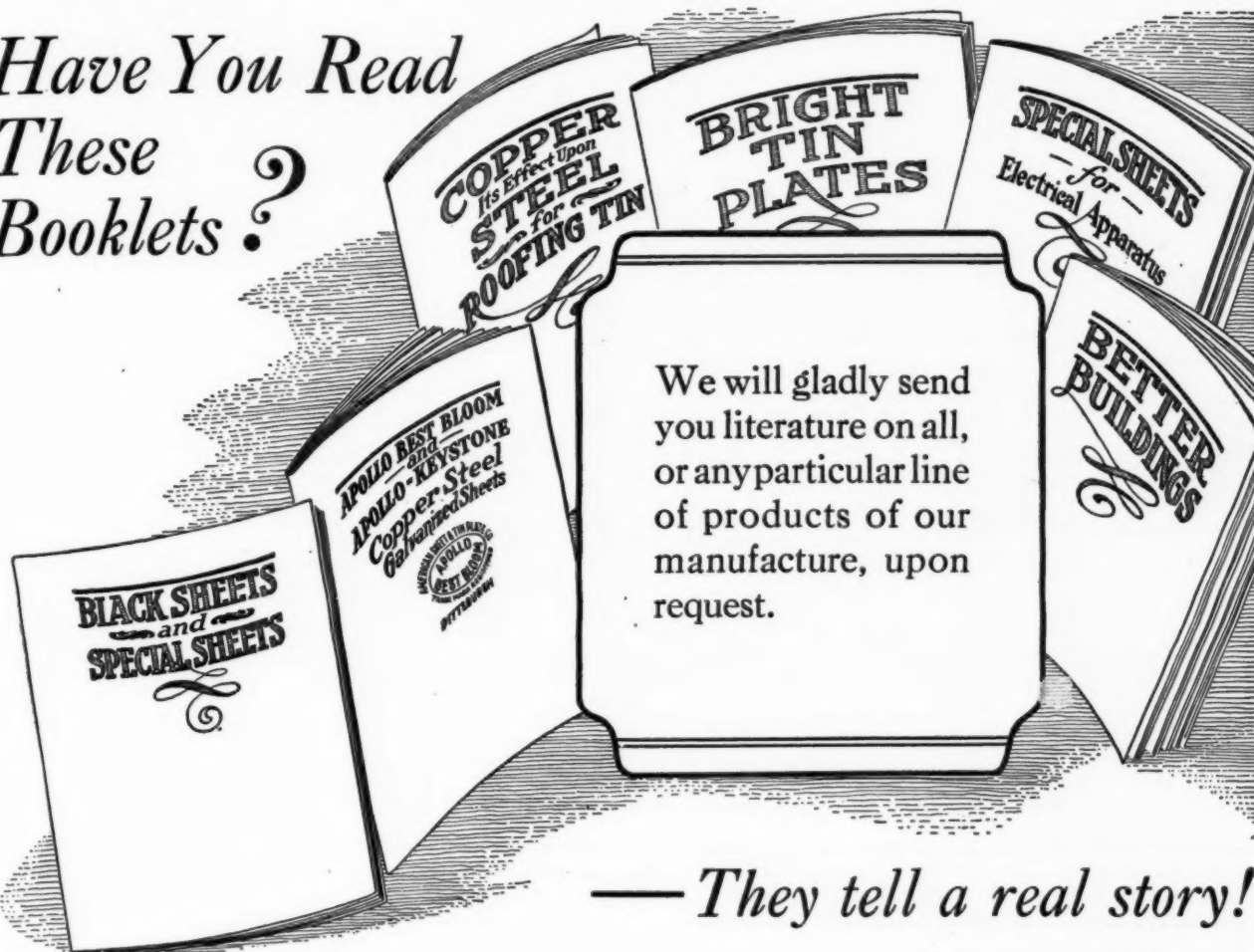
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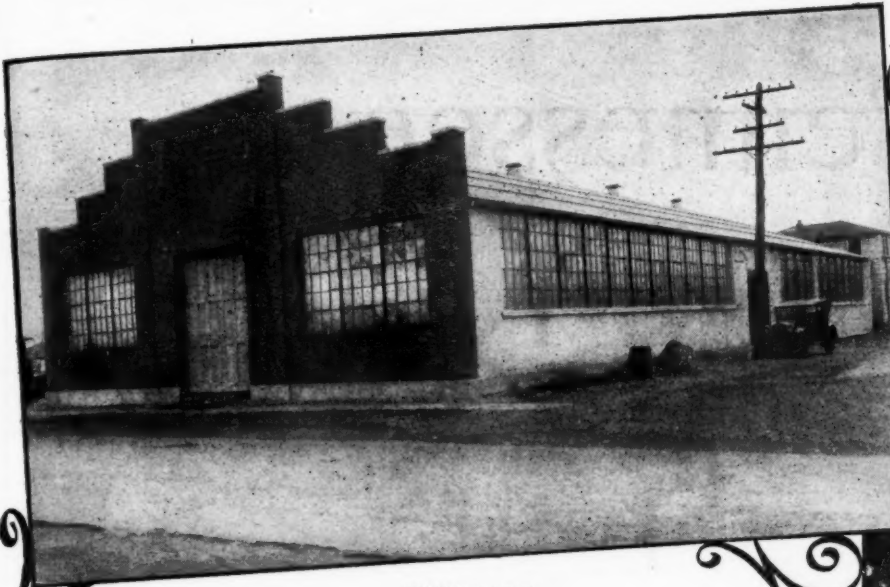
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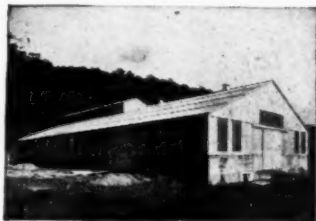


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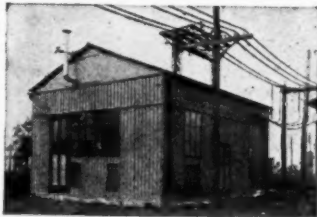
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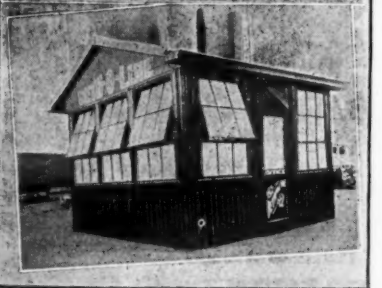
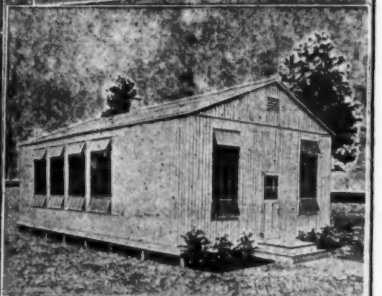
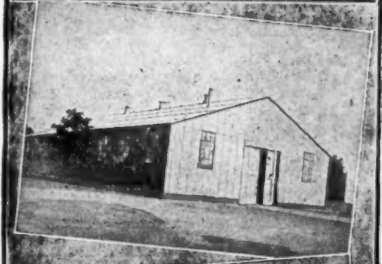
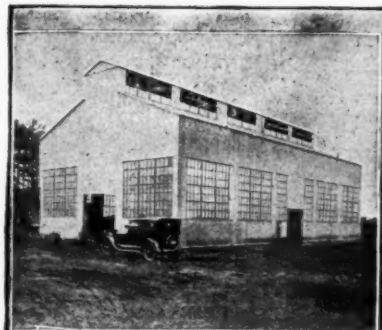
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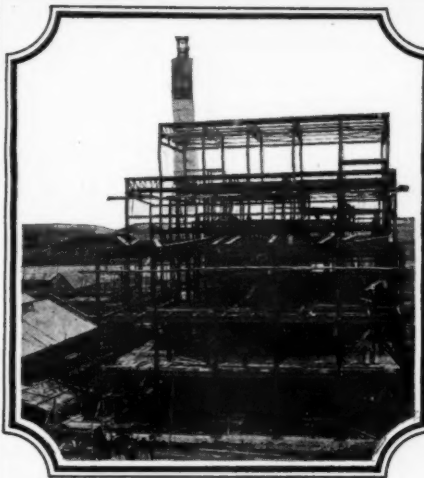
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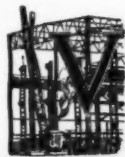
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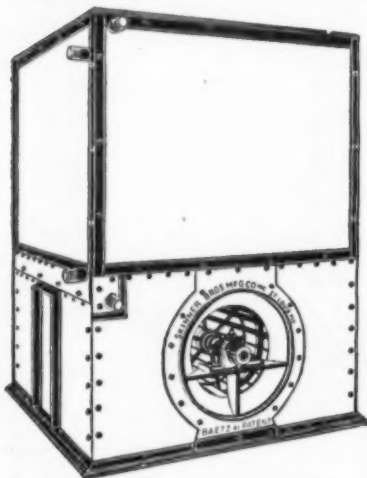
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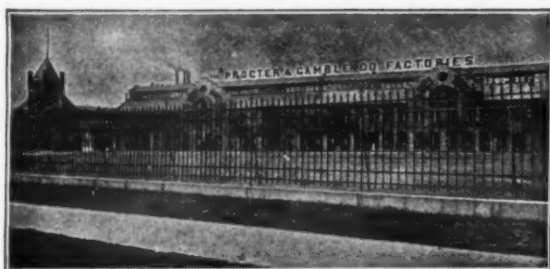
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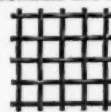


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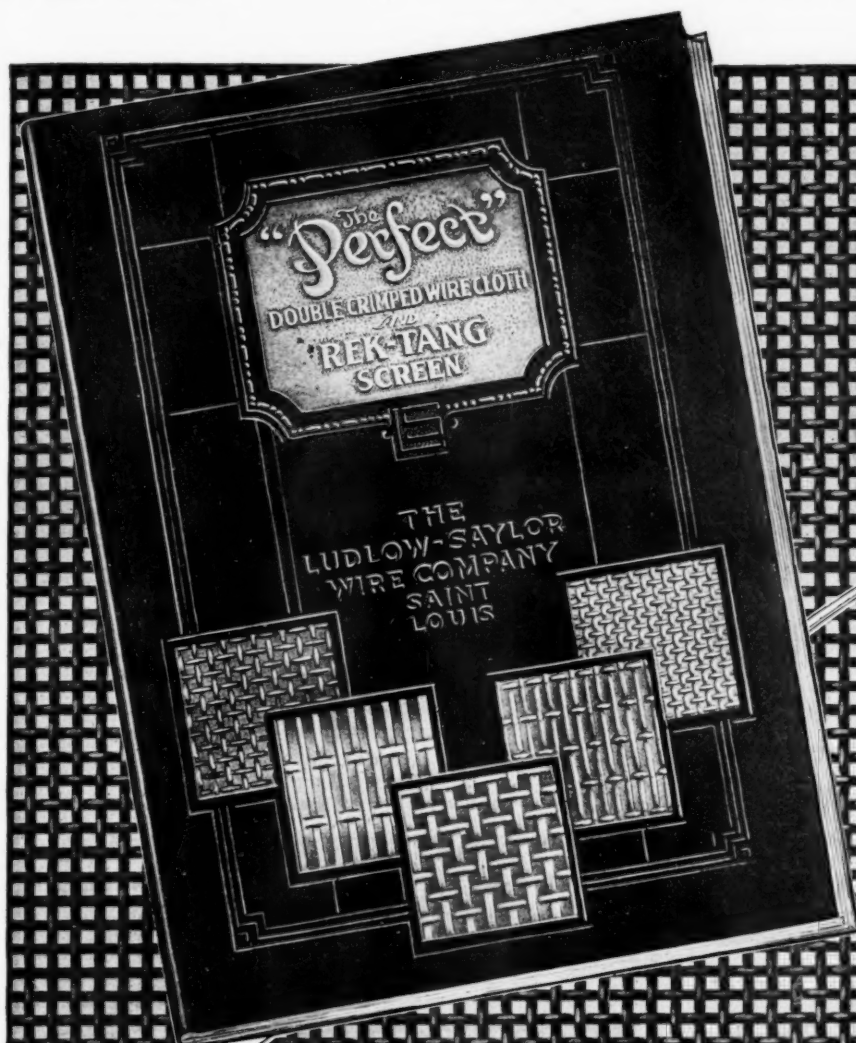
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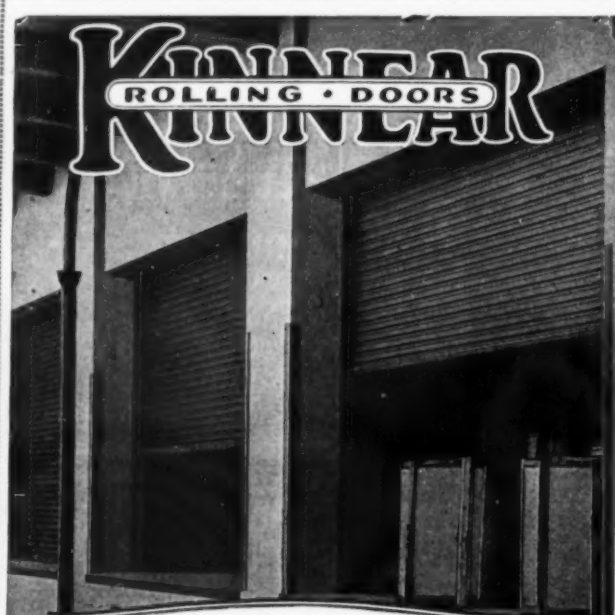
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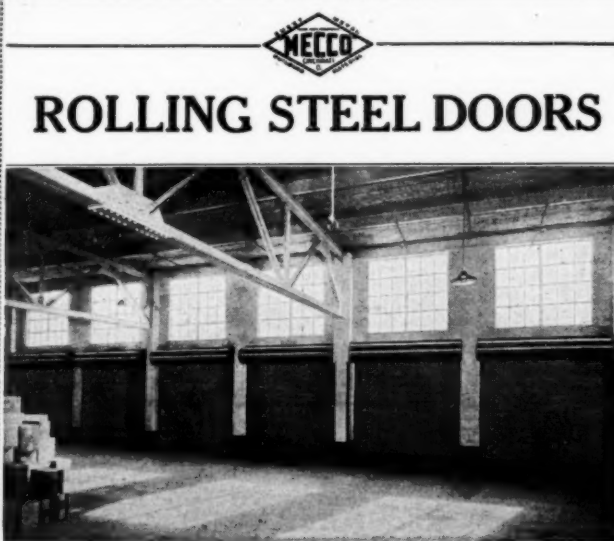
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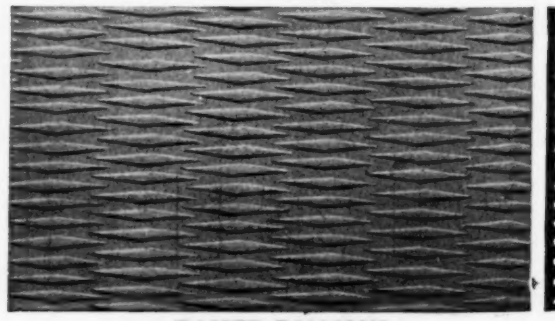
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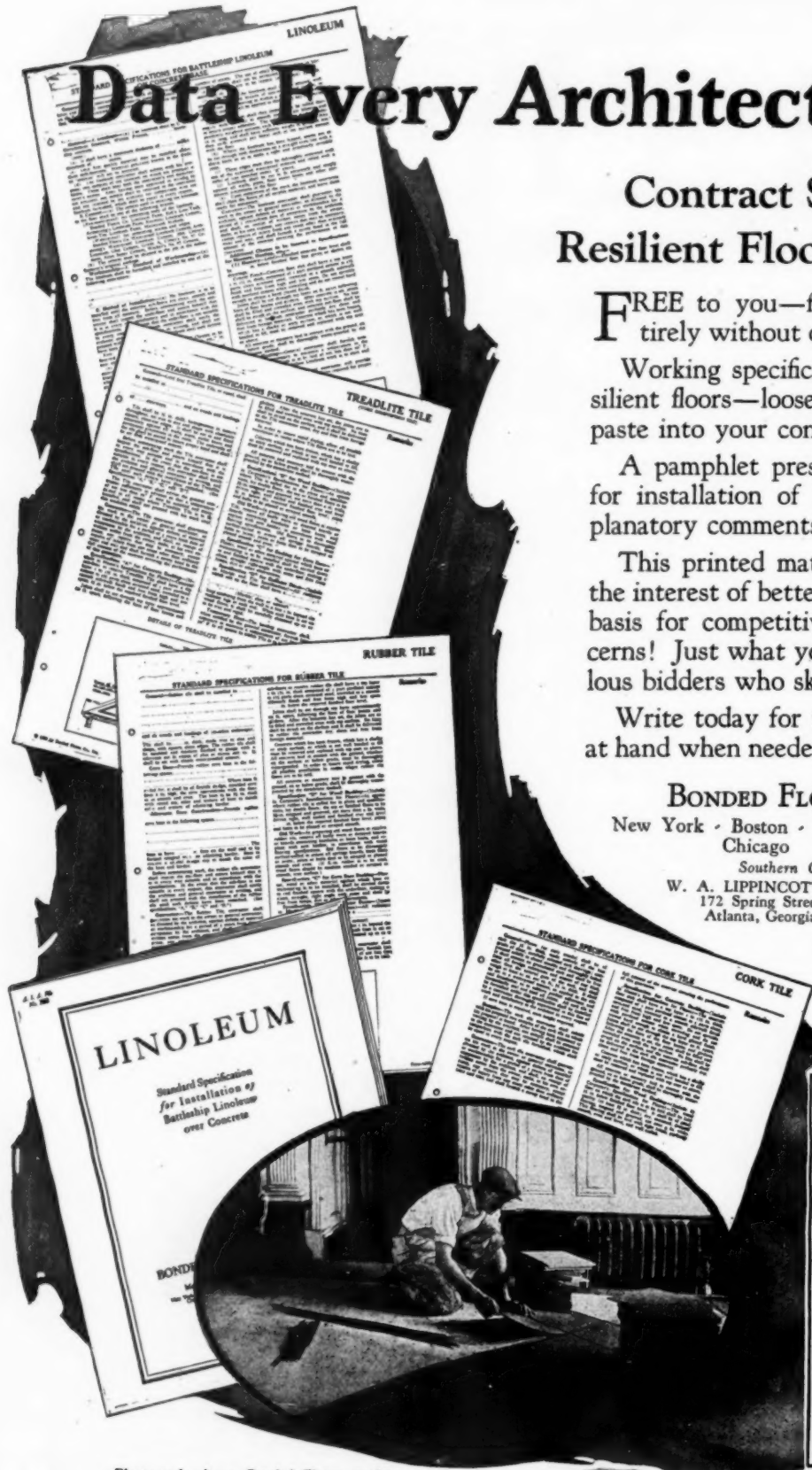
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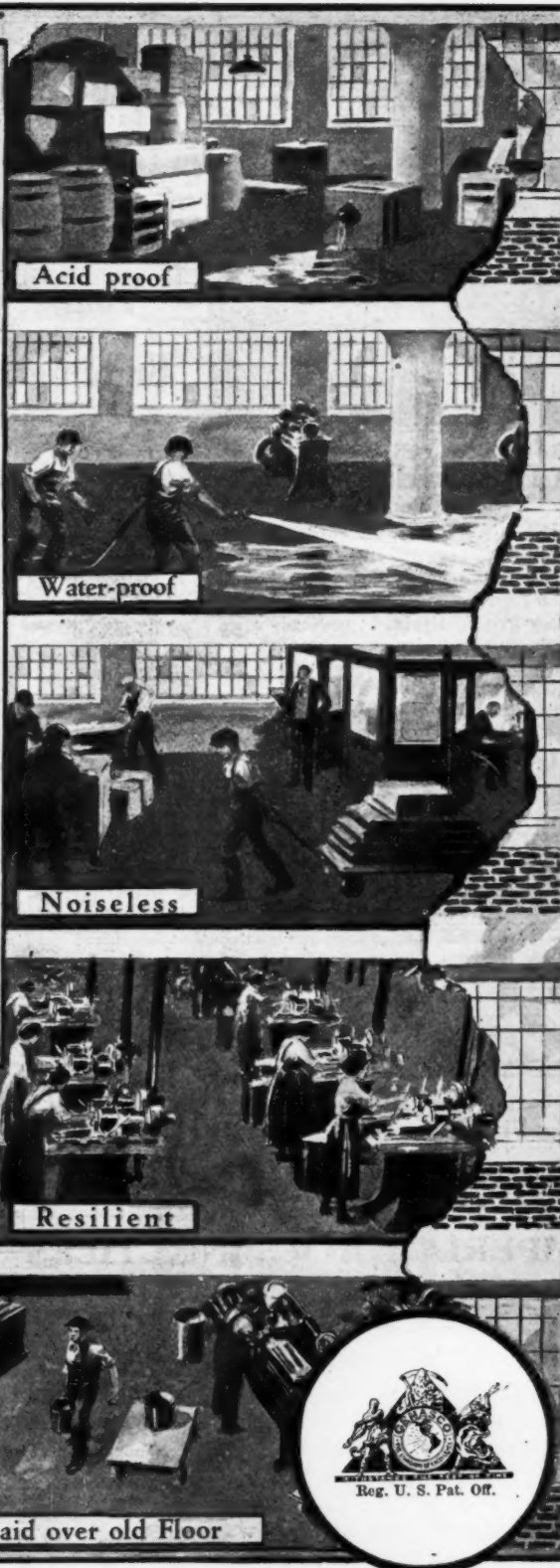
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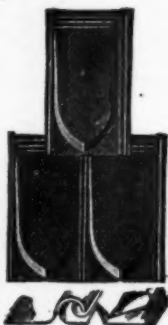
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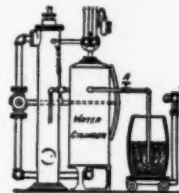
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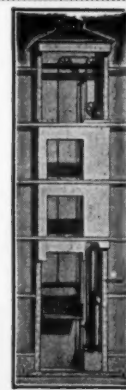
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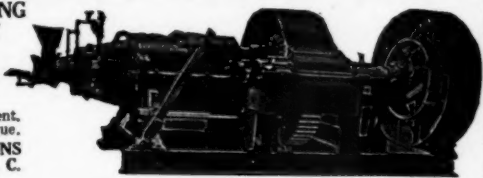
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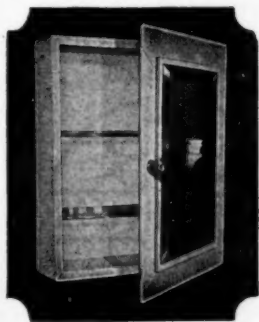
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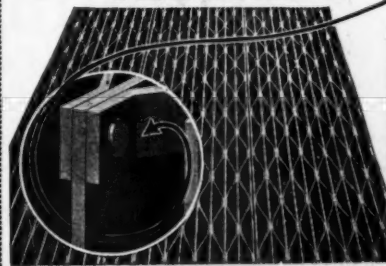
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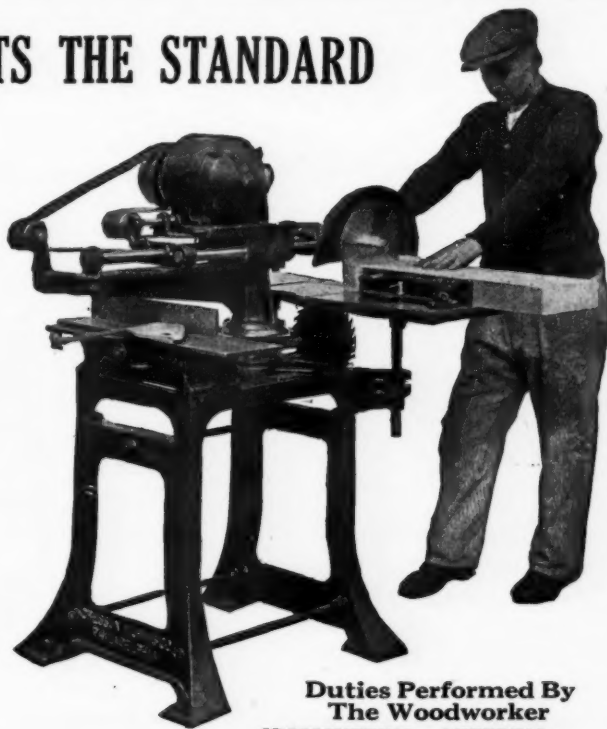
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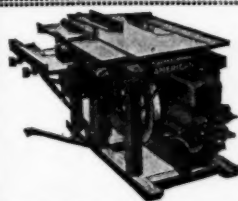
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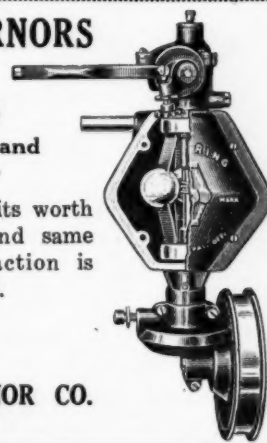
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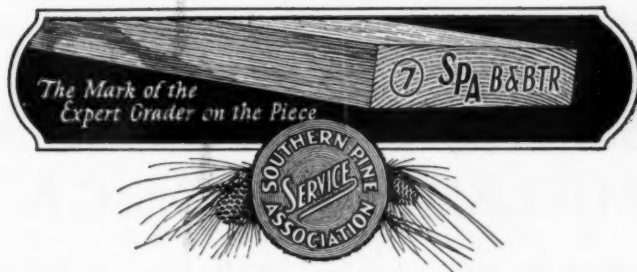
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B&BTR

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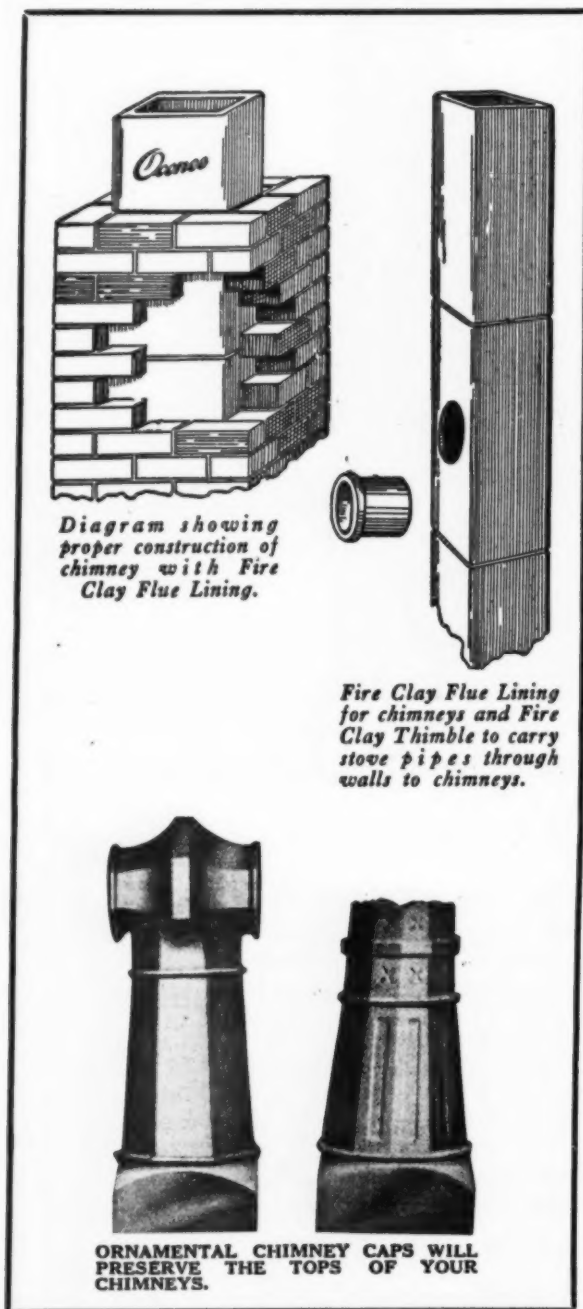
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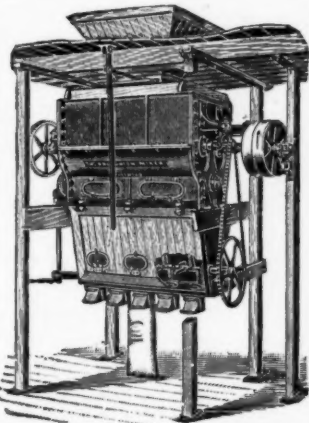
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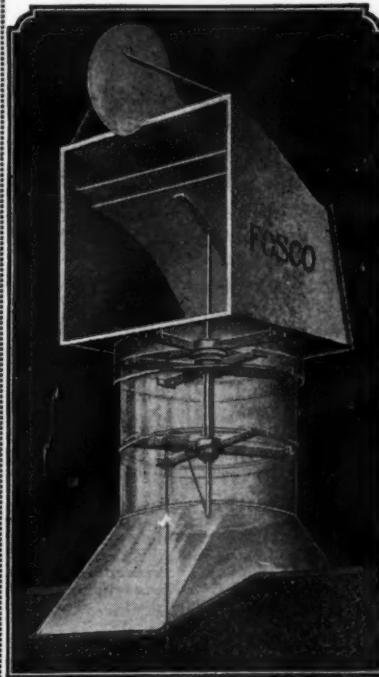
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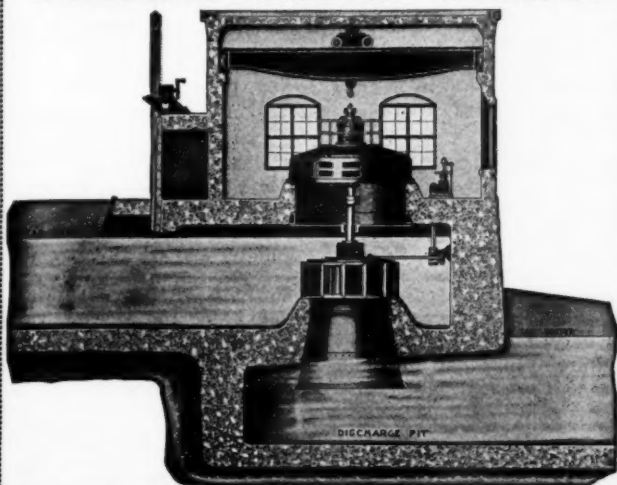
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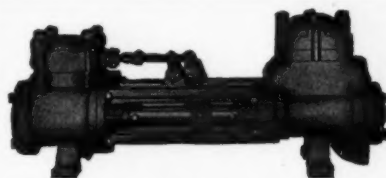
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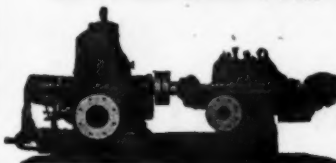
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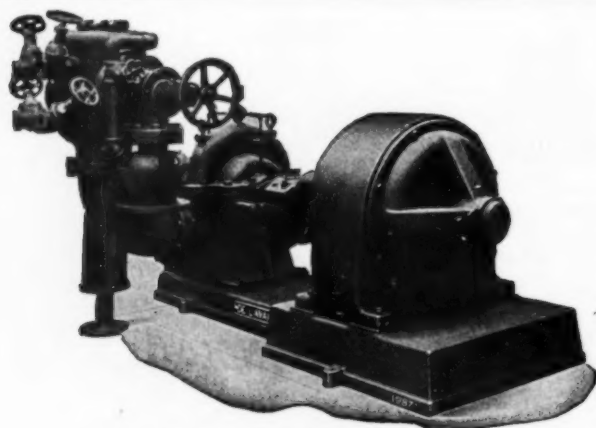
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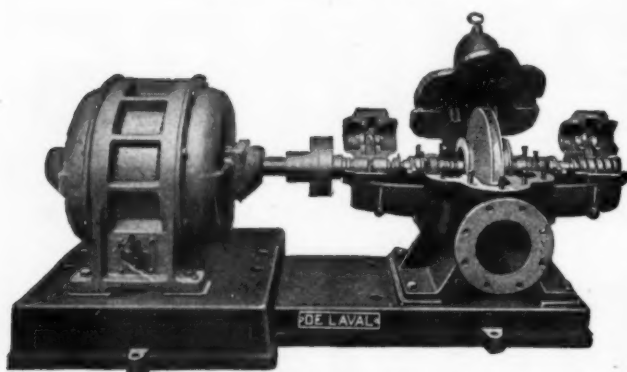
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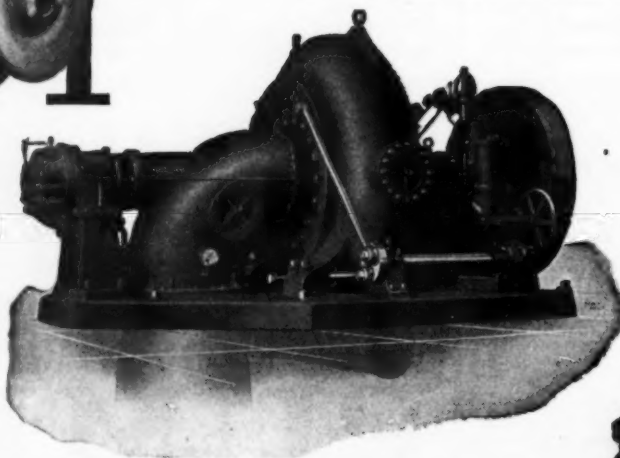
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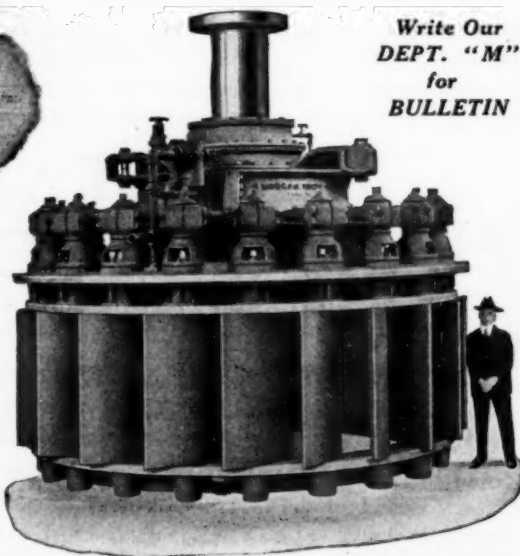
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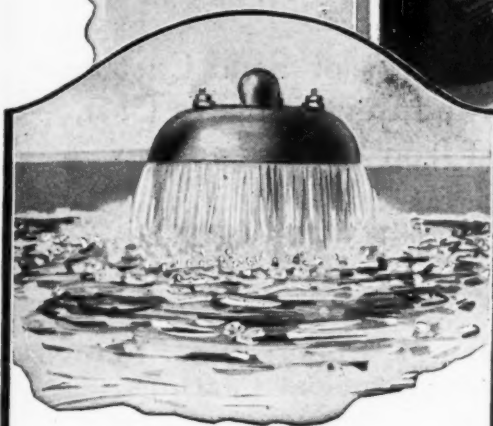
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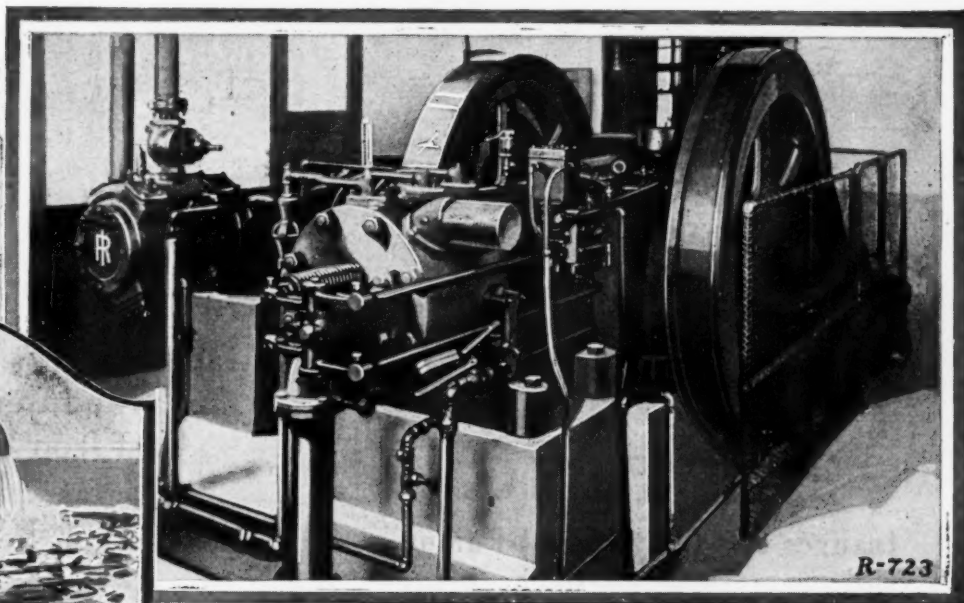




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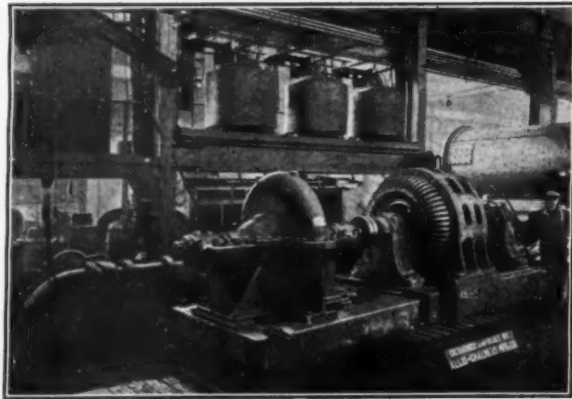
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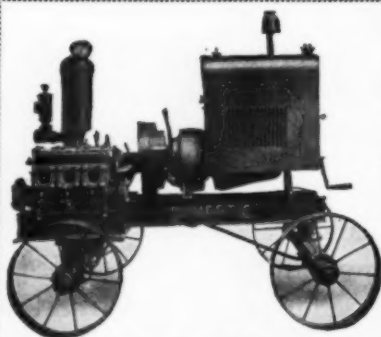


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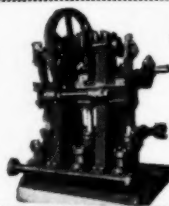
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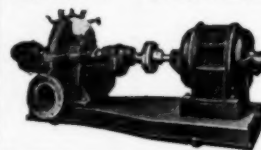


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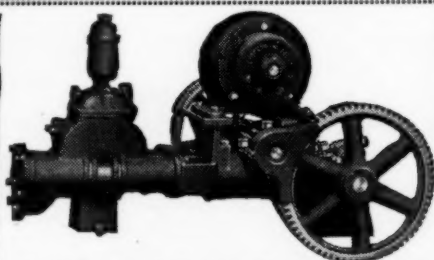
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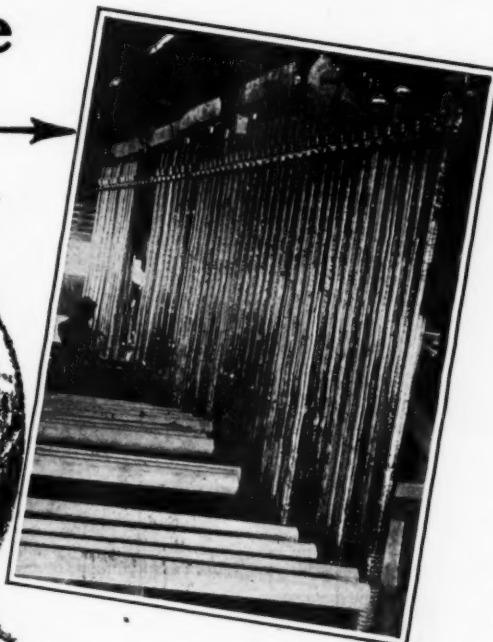
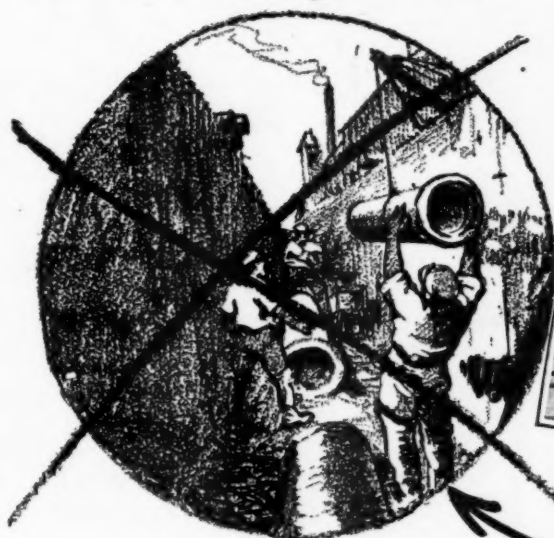
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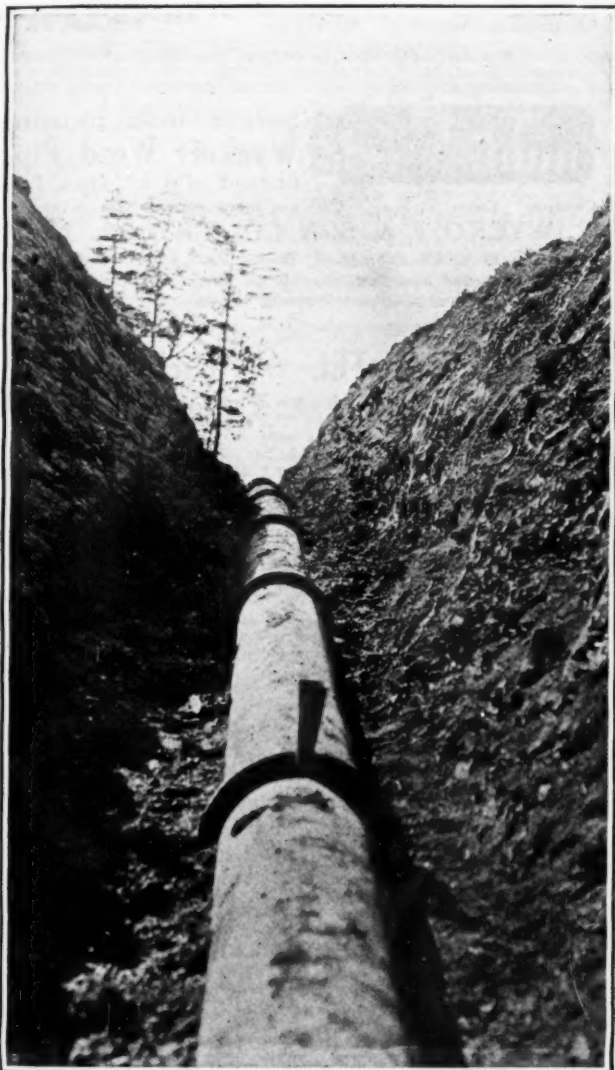
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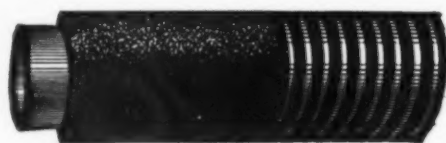
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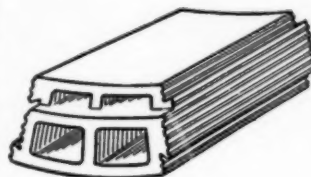
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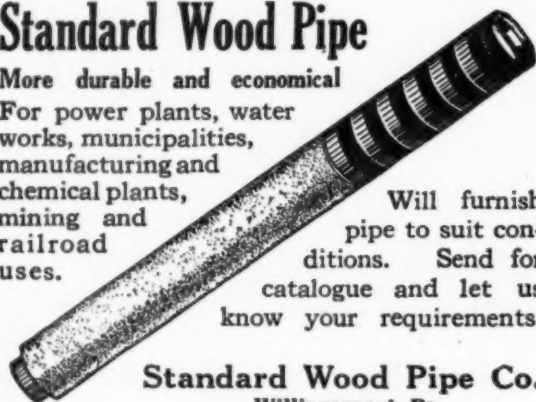
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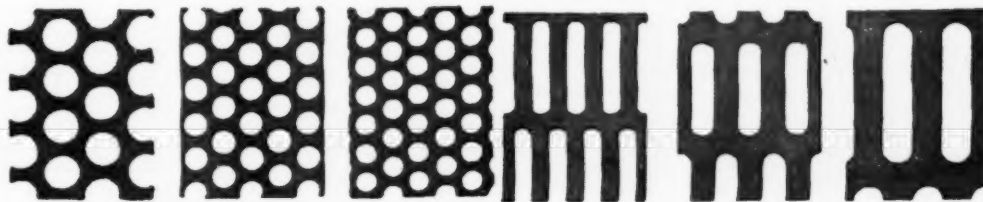
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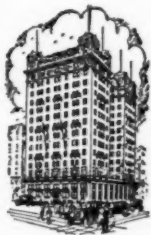
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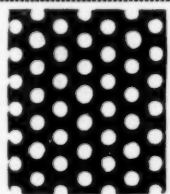
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A most serious problem is presented, however, in the increasing number of automobiles. Good headway is being made, but the problem is becoming increasingly difficult. Last year, from June 1 to September 30, the number of highway crossing accidents decreased 15 per cent. But the total number of accidents still is too high. In fact, experienced and veteran railroad trainmen are breaking under the strain and on Sundays, especially, they dread going out on their regularly assigned runs.

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Employees of the Missouri Pacific have interested themselves in this matter and have been instrumental in the organization of more than 125 "Stop, Look and Listen" Clubs with more than 35,000 members, and this great work is being carried on without abatement. But railroad men alone cannot do it all. The co-operation of the public must be obtained. Automobile drivers and passengers must observe reasonable precautions for safety.

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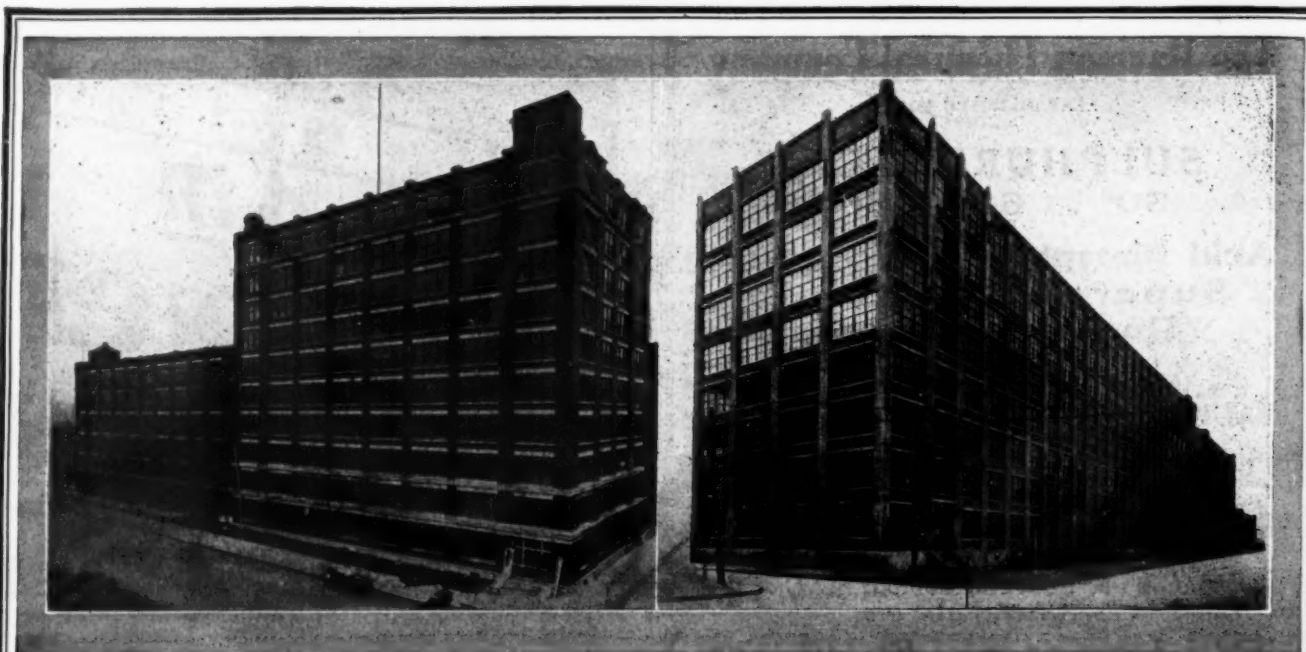
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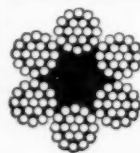
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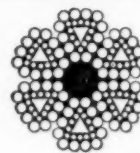
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Vol. LXXXVIII No. 19  
Weekly

BALTIMORE, NOVEMBER 5, 1925.

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## What Proper Income Taxation Methods Would Accomplish.

**I**N discussing the reduction of Federal taxation Secretary Mellon recently strongly objected to the exemption of all incomes under \$5000, as had been proposed, on the ground that to "relieve so many persons from taxation would take away much of their interest in the economical management of their Government, which would be an unfortunate situation from the point of view of the public good."

With this position we are in hearty accord, and we go much further than Secretary Mellon and strongly suggest that the reasons why incomes under \$5000 should not be exempted from taxation applies to *all* incomes, however much below \$5000 they may be. If every man and woman in the country had to make a report of income and pay a small amount of taxes, there would be developed a nation-wide interest in the economical management of the Government to the great advantage of the whole country.

So long as only 7,000,000 people out of our total population make any income returns, and so long as a considerable proportion of these do not pay any income taxation, a limited number of people are required to bear this burden for the benefit of others, all of whom should share in proportion to the amount of their income in the support of the Government. As a man's income increases the rate of taxation increases, which is class legislation, and which should never be permitted in this country under any circumstances. If John Smith owns one acre of land and his neighbor owns 500 acres, the rate of taxation is exactly the same on the small tract as on the big tract, the only difference being measured in the intrinsic value of the properties for taxation. The same rule should prevail as to income taxation. The man of small income should pay in exactly the same proportion as the man of large income. In that way all the people of the country would take a deeper interest in the economical management of the Government, all of them would feel that they are contributing to its maintenance, and the idea of class interests separating the rich man from the poor man would be done away with.

Moreover, under such a system the rate of taxation would be so low that the poor man would scarcely miss the amount paid, and the rich man would have a larger sum for investment in constructive or development enterprises. Everything that he saved out of taxation would go into constructive work of some kind. He could not throw the money into the ocean, nor could he pile it up in cash in bank. It would be invested in securities of railroad or industrial or municipal enterprises, or put into some form of active work. If he built a bigger house and spent more on his living than he had done, it would mean that he was creating more work for the car-

penter and the bricklayer and for the maker of all materials that go into construction work, and if he ate more food than he was accustomed to he would be creating a larger market for the products of the farm.

Every unnecessary dollar that is taken away from large incomes is a loss to the Government, because it is a loss to the country as a whole, lessening the amount of available capital for carrying on its development work.

It has been said that \$10,000,000,000 must be expended within the next decade upon the extension of electrical operations. We think this estimate is too low. There will be needed a very much larger amount if it can be had at a rate that is profitable for such work. The railroads need enormous expansion, for already their traffic is increasing more rapidly than their facilities. The almost complete tie-up of construction work in Florida by reason of embargoes which extend way back into the central South is only suggestive of the embargoes which railroads generally will have to put upon the traffic of the country within the next five or ten years if the expansion of their facilities is not made much more rapidly than is indicated at present.

The Florida situation is merely an acute condition liable to come upon the whole country whenever we reach what may be called a boom period in industry, and these boom periods inevitably come and find our transportation facilities wholly unequaled to the needs of the times. In the latter part of 1906 and the early part of 1907 there was such a complete embargo—although not so called—upon traffic that shipments were often delayed for months. In an address delivered in South Carolina by a cotton manufacturer in May of 1907 he stated that he had bought and paid for \$500,000 worth of cotton at Memphis three months before and not a bale of it had been received because the railroads were unable to handle it. On the same occasion another man told of how millinery goods ordered in the winter for early spring trade had not been received as late as May.

That situation is liable to come upon the country again and, therefore, every possible facility should be provided in order that the railroads may secure all the capital needed for the expansion that must be undertaken unless the whole country is to face the condition that the South then had to meet, and which today is halting construction work of all kinds in Florida. Florida is merely typical of what is liable to happen throughout the country within the next few years unless a vast increase in transportation facilities is provided.

But electrical development and railroad expansion are only two of the factors which will require a vast amount of capital year after year. The establishment of motorbus lines, the building of highways and the expansion of city activ-



ities will all require in the aggregate billions of new money. This money can only come from men of a sufficient degree of wealth to be able to invest in new securities. The man of small means rarely puts money into such enterprises. The few dollars that would be paid to the Federal Government on small incomes in the aggregate would amount to a vast sum, but they would rarely go into securities for constructive work. The larger sums that would be saved to men of means by the heavy reduction of their surtaxes would immediately go into constructive enterprises, creating new work for all classes of people and adding to the prosperity of the man of small means.

That is one viewpoint from which to consider the important question. But a broader view is the one which should make no differentiation between classes, but which should require a report on every income, however small, from every man and woman. A spirit of patriotism or of knowledge of the country's affairs would thus be created. It is true that the handling of these small incomes would be somewhat expensive in proportion to the amount involved, but that is of trifling importance compared with the desirability of having every man and woman in the country acquainted with the whole income-tax situation.

When Secretary Mellon, therefore, opposes the elimination of taxation from all incomes under \$5000 he should carry out his plan and include incomes from every man and woman, however small may be the amount.

Secretary Mellon opposes the extension over a lengthy period of our bonded indebtedness. In this, however, we think his position is as erroneous as the stand he took against the bonus. At that time the country was warned day after day and month after month by the financial papers, by Treasury officials and others that a bonus would fairly wreck the Federal Treasury and increase the burden of taxation upon the people as a whole. Moreover, it was said it would make it impossible to continue the reduction of our bonded indebtedness. In the course of events all of these arguments have been proven absolutely without any basis of fact. We have kept on steadily reducing our bonded indebtedness, and with the increasing wealth of the country, which goes on at a tremendous rate, we can continue to reduce Federal indebtedness stretched over a long period of years without in any way whatever injuring the country. On the contrary, by the extension of the time for the final payment of our indebtedness we could so greatly lower the rate of taxation as to increase the supply of capital available for carrying out the great enterprises so much needed for expanding our railroad and electrical activities, and in this way render a service of value to all the people. A very heavy decrease in taxation, based on a gradual payment, say, over a period of 40 or 50 years, of our Liberty and Victory bonds would instantly start a more active development, the larger employment of machinery and of labor, and in so doing create greater prosperity.

## HOW TO SECURE BEST COMPETITIVE BIDS FOR MUNICIPAL WORK.

City of Natchez.

Natchez, Miss., October 23.

Editor *Manufacturers Record*:

Enclosed I hand you city warrant No. 8458 for \$60.90.

I beg to thank you for the splendid display you gave of the advertisement to contractors. The result of that advertisement was to bring 25 of the most reputable concerns in the country to bid on our street paving.

JOHN F. JENKINS, City Clerk.

## TWO WAYS OF SELLING SECURITIES.

NEW YORK bankers carried an advertisement last week of bonds issued by the Alpine Mountain Steel Corporation of Austria. At the bottom of the advertisement was the statement which is used by practically all banking houses in selling securities and which reads as follows:

"The above statements, while not guaranteed, are taken from sources believed to be accurate."

The usual form of this expression is:

"We do not guarantee the above information, but have obtained it from official sources which we believe to be reliable."

The position of this paper on such advertisements is that the time must come when every banking house must guarantee the accuracy of the statements made when selling securities to the public.

In contrast is an advertisement issued on the same day by the Adair Realty & Trust Co., which is in direct harmony with the methods adopted by a number of other houses in this country in selling bonds. In a full-page advertisement in the New York Times that company made the following statements:

"We have therefore concluded, and now announce, that the payment of all mortgage bonds hereafter offered for sale by this house, both principal and interest, will be guaranteed by this corporation. This guarantee will be made without expense of any character to the bondholder and solely for the purpose of affording the investor a legal safeguard to which we feel he is entitled.

"Furthermore, this guarantee is made retroactive and will apply to all issues of Adair protected bonds now outstanding.

"No greater proof could be offered of the deep faith which Adair Realty & Trust Co. has in its bonds. No greater proof could be offered that Adair loans are conservatively made, and that in each case the margin of safety is sufficient to meet any contingency that may arise during the term of the loan, than this one great and indisputable fact: that the House of Adair has voluntarily placed its entire capital and surplus, exceeding two million dollars, behind each and every Adair bond.

"The investing public will be quick to realize:

"1. That the moral obligation of the House of Adair, heretofore acknowledged, has been made a legal obligation.

"2. That in making this moral obligation legal it has bound posterity of the company to the same obligation and definitely determines the attitude of those who may follow the present individuals directing the policy of the company—of very vital interest to holders of bonds, the term of which extends over a period of years.

"3. That before any owner of Adair protected bonds shall suffer any loss, the issuing house must first lose its *all*, down to the very last penny.

"4. That any loan accepted by the issuing house is with the full knowledge that its own resources must unconditionally support the stability of the loan. No greater safeguard could surround the selection of loans."

Here is the direct and specific way which sooner or later all security sellers will, we think, be forced by moral or legal influences to adopt. It is this fair and square way in dealing with the public which banking houses should feel fully justified in putting into effect on every issue of securities they sell. The arguments against this policy are not sound. The arguments in favor of it are unanswerable. Because of the influence of this system of guaranteeing securities issued, we are glad to give to the Adair Company the publicity to which they are entitled in the interests of the public. But there are other houses doing similar work; they deserve the same kind of commendation.



# World Trade Approaching Pre-War Volume— 30 Per Cent Gain by the United States.

THERE are no world statistics available that can make a true picture of the imponderable factors which have disturbed foreign trade since the World War, points out Secretary O. K. Davis of the National Foreign Trade Council of New York. Nevertheless, this organization, in a compilation of export figures of the principal countries of the world, comparing the exports of 1925 reduced to 1913 values with the exports of 1913, suggests that after twelve years the world is beginning to get back to where it stood before the war. In other words, international trade is approaching the par value of 1913, allowing for all the deflation since.

American leadership in world trade, as indicated by the Council's study, should give encouragement to the American people to continue to make good in foreign trade.

The fifteen principal exporting nations of the world which carry on more than 80 per cent of the world's export trade showed a combined total of exports at the end of the fiscal year of 1925, measured in 1913 values, of about \$15,088,000,000. Comparing this total exports value of these countries with their exports in 1913, which amounted to \$15,800,000,000, their recovery is within 5 per cent of their 1913 volume of trade. Excluding the United States, which has made a 30 per cent advance during the period in trade, their deficit is about 11 per cent from the 1913 standing. It must be noted that these figures allow for all deflations and are reduced to 1913 values. In other words, the parity now approaching is not one in dollar values, which have already passed the pre-war figures, but in bread and meat and clothing values adjusted to the cost of living quotations, which approximate a true comparison of pre-war condition.

If the world's growth in real trade continues as it has for the last two years, it is due to reach very close to the 1913 figures by the end of the present year, and by the end of the next fiscal year to show a small surplus.

Export trade from the United States is now increasing by 13 per cent a year at a steadily larger rate than that of the rest of the world. The share of the United States in the aggregate trade of the world has grown from 13½ per cent in 1913, when it was less than that of Great Britain, to more than 18 per cent at the present time, as compared with 15 per cent for Great Britain.

The figures of the physical volume of trade also show that the world is again very close to the pre-war condition. In its estimate for 1924 the Department of Commerce computed that the physical volume of trade between the countries of the world was 96 per cent in 1924 of what it was in 1913. It is steadily growing by from 6 to 8 per cent per year, and the volume of world trade will thus have reached or passed its 1913 figures by the end of this year.

The United States is accountable for most of the gain, its increase being more than 30 per cent since 1913 against a world deficit. Other countries which have exceeded the proportionate gain of the United States during the period have been Canada, a gain of over 90 per cent; Japan with 64 per cent and Australia with 35 per cent. The amount of gain recorded by the United States, over \$800,000,000, is far in excess of that of any other nation when reduced to 1913 values. The gain of Japan has been about \$203,000,000, that of Canada \$335,000,000 and that of Australia \$120,000,000. The most interesting gain of all has been that of France, which stands third among the nations, or next following the United States and Canada. In the amount of real trade gained since the war. France increased its exports from \$1,328,000,000 in 1913 to \$1,650,000,000 at the end of the present fiscal year—

a gain of \$322,000,000, or about 25 per cent. This is a showing that can be made by no other European nation.

On the other side of the balance sheet the world shows a net loss in real export trade for Germany of 47 per cent, for Belgium of 34 per cent and for Great Britain of 5½ per cent. Russia, of course, shows the greatest loss of all, with 84 per cent reduction in real export trade value from \$783,000,000 to \$122,000,000. Allowing for the independent status of Russian Poland and the Baltic States, the Russian deficit, as weighted to allow for these factors, is still between 50 and 60 per cent, or still the heaviest loss in real trade suffered anywhere in the world.

In almost every phase of this comparison the United Kingdom rises or falls as the world rises or falls. Thus, the British deficit in export trade at the end of the fiscal year of 5½ per cent is almost exactly equal to the same deficit of the world at large. British export trade is growing at a rate of 9 per cent, while world export trade is growing at about 10 per cent, and the proportion which Great Britain holds in the trade of the world, which was 14.2 per cent in 1913, is about 15 per cent today.

In spite of the fact that China's recent losses in trade have diverted attention from that country, it is interesting to note that China's latest export figures still show an actual gain over 1913 of 37 per cent, with an aggregate surplus for 1924 of over \$100,000,000 greater than 1913. The preliminary estimates for the present year, however, show that disturbed conditions in China are materially reducing that surplus.

The table showing the recovery of export trade among the fifteen principal export countries between 1913 and 1925 follows:

RECOVERY OF EXPORT TRADE OF FIFTEEN PRINCIPAL EXPORT COUNTRIES BETWEEN 1913 AND 1925 (fiscal year).

	1913 exports (1000's of dollars)	1925 (fiscal year) exports adjusted to 1913 values	Per cent increase
United States .....	\$2,484,018	\$3,243,400	+30
France .....	1,328,000	1,650,000	+24
Great Britain .....	3,089,353	2,916,000	-5½
Italy .....	484,746	537,840	+11
Belgium .....	701,580	*462,145	-34
Canada .....	355,755	691,000	+94
Japan .....	315,281	518,500	+64
Australia .....	353,742	473,000	+35
Germany .....	2,550,000	1,355,000	-47
India .....	783,000	846,000	+8
Argentina .....	500,986	*526,800	+5
Brazil .....	318,518	*251,000	-21
Russia .....	782,869	†122,000	-84
Holland and Dutch East Indies .....	1,480,000	*780,000	-47
Poland (less Galicia) and Baltic States added to Russian and German balances .....	.....	*255,000	....
China .....	305,977	*416,760	+37
Irish Free State added to United Kingdom balance .....	.....	*145,000	....
Total .....	\$15,833,545	\$15,088,500	-4½
Less United States .....	\$13,349,527	\$11,845,100	-11½

\*1924. †Based on 10 months, 1924-5. — Decrease.

Dr. Julius Klein, director, Bureau of Foreign and Domestic Commerce, in an address last week before the National Association of Farm Equipment Manufacturers, Chicago, said:

"The outstanding topic in the world of international business today is the recovery of Europe, with all it implies to us, not only in terms of revived buying power for our leading customer but particularly as a significant indication of coming competition in overseas trade. Europe's purchases from us this year will probably approach the formidable figure of \$2,700,000,000, comprising not only the staple raw materials—wheat, cotton, copper, oil, etc.—but a rapidly increasing proportion of fabricated wares. No less than 30 per cent of our total exports of the latter group now go to Europe."

### A STRONG ADDRESS BY PRESIDENT EDGERTON OF THE NATIONAL ASSOCIATION OF MANUFACTURERS.

SO sound and fearless was the speech of President John E. Edgerton of the National Association of Manufacturers at the recent convention of that organization in St. Louis that the MANUFACTURERS RECORD regrets the imperative demands on its space prevent its publication in full. In his description of the reckless dissipation now characteristic of American national and domestic, political and social life Mr. Edgerton was bravely outspoken; in his denunciation of the selfish greed of organized labor he set an example of fearlessness which should shame most of the newspapers and officeholders and politicians of the land.

"Of all the present dangers which threaten the security of our national life," said Mr. Edgerton, "the greatest, in my opinion, is the growing dissolution of the American home under the disintegrating influences of our pleasure-mad, money-mad, modern conditions."

Among many persons seeking the reason for prevalence of these conditions there is a tendency to attribute them to "the failure of religion," during and since the war, to inspire the spiritual interest of the people and through that to protect them against the recklessness of the reaction from the material tenseness of war times. Religion has not failed—religion never can fail; but very, very many of the clergy of every faith, the interpreters and teachers of religion have failed, as Mr. Edgerton indirectly asserts—have failed religion, have failed the people and have failed themselves. These may be regarded as typical of the "intelligentsia" to whom Mr. Edgerton refers in the course of his remarks.

In support of his description of modern conditions Mr. Edgerton cited "the energetic endeavors through organized force to make the quantity and price of the products of human efforts go up at the same time and remain at fixed points determined by legislative statute," and "the strange philosophies of \* \* \* Government-controlled children, the closed union shop and the socialistic redistribution of wealth." And, mark this:

"Such philosophies have been respectabilized by repetition until they have been caught up by the intelligentsia and are now thundered unblushingly from many of our pulpits, platforms and rostra and taught in our schools."

The MANUFACTURERS RECORD has had occasion more than once to refer to the gross ignorance of the so-called "intelligentsia"—the well educated, prosperous and, in the main, really conscientious element of the people. In search of something with which to "kill time," such persons in a spirit of self-exaltation and self-righteousness pose as friends of other elements which they regard as, in the mass, "the under dog." Among these elements are organized labor, which, when under radical control, is the most tyrannical, selfish and despotic group in the nation; the soviets in America, who appeal to the "intelligentsia" as being deprived of "free speech" and subjected to "restriction of freedom"; the demagogues and Reds, who picture children, content and well cared for in their daily work, as "little slaves" ground under the heel of "capital." Without pausing to investigate and to learn the truth, the "intelligentsia" yield to emotionalism and pour their sympathy, energies and money into the coffers of communism, which laughs in its sleeves at the ignorance of its dupes and prepares further emotional "slogans" with which to deceive them.

"Count the organizations whose conscious objects, or the unconscious tendencies of whose activities, are to socialize, sovietize and paralyze our industrial and Governmental processes," said Mr. Edgerton.

We are tempted right here to name names, not in intimation that such persons are sympathetic with oppression or

anarchy but in illustration of the manner in which persons of high character and standing are deceived and used as tools by the elements which are working to undermine and overthrow the Government of the United States by bloodshed and violence. As the late R. M. Whitney, author of "Reds in America" and an authority on communism in the United States, explained, many apparently respectable organizations are interlinked and are used by the Communists, and the work of many fine citizens is prostituted to the promotion of sovietism in America. Said he:

"Their officers are duplicated to a great extent. Robert S. Brookings is president of the Institute of Economics and chairman of the Institute of Government Research. Arthur T. Hadley (former president of Yale University) is vice-chairman of the Institute of Economics and trustee of the Institute of Government Research. A. Lawrence Lowell is trustee of both organizations and is a member of the council of the League of Nations Non-Partisan Association. He was formerly chairman of the executive committee of the League to Enforce Peace. Samuel Mather is trustee of both Institutes and is a member of the council of the Liberal League."

Representative Roy O. Woodruff of Michigan, for instance, a fine, upstanding man, is down as a member of the People's Legislative Service, and former United States Senator David I. Walsh of Massachusetts as a member of the same organization. Mrs. Gifford Pinchot, wife of the Governor of Pennsylvania, is listed in the Committee for Immigrants in America and the Policy Committee, American Peace Award. The late Representative Isaac R. Sherwood, a patriotic American through and through, was enlisted in the People's Legislative Service, and the name of Mrs. H. Otto Witpenn of New Jersey is found in the Church League for Industrial Democracy and the Foreign Policy Association. These names are picked at random to illustrate the delusions of the "intelligentsia." Behind such high-standing human smoke screens the soviets and organized labor operate.

"There is nothing fundamentally wrong with our system," said Mr. Edgerton. "It is not the system which needs changing but those people concerned with its operations who are dishonest, or otherwise incompetent. If those brethren of our churches who are so busy studying out ways to change the social order would change their own methods of reformation by ceasing their efforts to force upon industry their interpretations of economic law and correct economic practice, about which they know so little, and by returning to the preaching of the Gospel of Jesus Christ and teaching His principles to men, they would, in my opinion, more quickly lay foundations of love, from which brotherhood and peace will naturally rise, and upon which only can the structures of man rest in eternal security."

There is a lay sermon which many of the clergy will do well to ponder. We repeat, it is not Religion that has failed mankind, but many of the ministers of Religion.

Asserting that "there is enough of intelligence and honesty among the unorganized majority and the organized minority of wage-earners in America and among their employers to settle all disputes that arise in their field," Mr. Edgerton declared that such a thing as joint control of business is unthinkable. He reiterated that his association has no thought of crushing or opposing organized labor, but said it is an "arrogant presumption, irreconcilable with the demands of reason or justice, for any man or men to attempt to dictate to the owners or responsible operators of any business whom they may or may not employ or whom they must or must not employ."

Mr. Edgerton's speech is notable not only as setting forth actual facts in straightforward, convincing fashion, but also for brave, outspoken frankness in these days of "discretion" or "caution" or actual fear in discussion of such subjects.

It is worth mentioning that Mr. Edgerton is one of the most earnest Christian laymen of the country. In his woolen mill at Lebanon, Tenn., there is a chapel where the employees



meet every morning for a prayer and praise service before beginning their work. About 90 per cent of all these employees are Christians. Mr. Edgerton was chairman of the Methodist Centenary Campaign in the South. Busy as he is as president of the National Association of Manufacturers and of his own woolen mill in Tennessee, he finds time to be an active worker in his religious life.

### AMERICA SHOULD NOT RECOGNIZE SOVIETISM.

A new effort is being made and, according to reports from Washington, with some intimation of the Administration's support, to get us to recognize the Soviet Government of Russia. Such a movement, we think, is inimical to the best interests of the world. Russia under its present administration has put itself beyond the pale of civilization. It is a rank, rotten system, concentrating its efforts largely upon the destruction of religion, forbidding the teaching of religion even by parents, persecuting without end those who seek to preach the Gospel, ruthless, unscrupulous, murderous in its campaign for the advancement of bolshevism throughout the world.

A recognition of Russia by America would put commercialism above all other national aims. That some large American interests for their own financial profit are seeking to secure the recognition of that Government is not a satisfactory reason for putting our stamp of approval as a premium upon a Government sunk to such depths of depravity as has been that of the Soviet régime. If, as is generally understood, some large American interests, for the purpose of increasing their trade with Russia, are seeking to induce the Administration to recognize Sovietism, they are simply encouraging the spirit of bolshevism, the outcome of which, unless checked, would be the ruin of this country, as that very spirit today endangers all of Europe, even England itself. The men who are advocating this are playing with fire, which may some day bring on a conflagration destroying every business interest they have. They are putting a premium upon an effort to overthrow the religious life of the world.

### THINKS WE ARE "BUNK."

Laurel, Miss., October 24.

*Editor Manufacturers Record:*

Certainly France's war debt to the United States should be cancelled. Otherwise how could they support an army to kill negroes and Arabs to get their land? Suppose you donate your paper.

I suggest you and your journal both move to France.

Your answer to Mr. Walker is *pure bunk*.

SAM C. JONES.

Perhaps Mr. Jones does not know as much as he thinks he knows in regard to what is "pure bunk." But, anyway, we give him the opportunity to express his views.

Perhaps he does not know that German interests have been back of the Riff campaign, and that Germany supplied the Riffs with their arms for the purpose of getting control of the vast mineral interests of Morocco, just as the fight at Verdun was for the purpose of getting control of the iron-ore interests of that region.

Perhaps Mr. Jones does not remember that Mississippi many years ago repudiated its own bonds, and that that repudiation was successfully used in London during the Civil War to prevent London bankers from making a heavy gold loan to the Confederacy.

France has not proposed to repudiate its loan. The MANUFACTURERS RECORD is favoring cancelling all of these debts in justice to ourselves without regard to whether Europe wants them cancelled or not.

### NEW ENGLAND MONEY GOING INTO THE SOUTH.

AN Associated Press dispatch from Boston, reporting the withdrawal of deposits from New England banks for investment in Florida, is as follows:

"The small savings bank depositor, in common with the depositor in the commercial banks of New England, is taking his turn at speculating in the Florida real estate boom. Bank officers said the aggregate of withdrawals sent South had assumed enormous proportions.

"One Boston savings bank president estimated that \$2000 a day was being sent to Florida by customers, who confided their plans to the clerks. A suburban bank estimated its Florida land withdrawals at \$10,000 a week.

"One of the larger commercial banks estimated that its customers had sent \$1,000,000 to Florida. Springfield, Worcester and other cities and towns reported similar withdrawals."

Similar statements are being issued by the bankers of Pennsylvania and the West, indicating how widespread is the movement for investment in Florida. New England ought not to be disturbed over such a situation, for much of the wealth of New England was made by its enormous investments in the West and in great development enterprises and railroad building and kindred activities in early days. New England poured its capital into these things and reaped from most of them a rich harvest of prosperity. The South now becomes the center for the investment activities of the country. For the moment Florida and the Mississippi Gulf coast are leading, but gradually the movement will spread to the entire South, and the capital which is now being drawn from Pennsylvania, Ohio, Indiana, Illinois and New England and other states will go into the widest ramification of constructive work in the South to the profit of the investors as a whole and to the profit of the South. Here and there losses will inevitably be made, just as there are constant losses made on the stock exchange and in other speculative markets, but the general investment business in the South will yield on the average larger profits than can be secured in any other part of the country.

### A WRONG MOVE BY THE MIAMI POSTOFFICE.

SECTION 589 of the United States Postal Laws and Regulations reads as follows:

"At letter-carrier offices, where a city directory is available, it shall be used, when necessary, to ascertain the address of persons to whom letters are directed, and it should also be used in the case of transient newspaper and other matter of the third and fourth class, where the error in or omission of street address is evidently the result of ignorance or inadvertence."

The MANUFACTURERS RECORD and doubtless other concerns that are sending mail to Miami have been advised that unless the street address is put on all mail letters will be returned to the writers without any effort to locate the people to whom they are sent.

We fully appreciate the fact that while the Miami post-office, and other postoffices in Florida, are manned for a small population, many of them have grown so rapidly that it is well-nigh a physical impossibility for the limited number of clerks they have to take care of the mail. This, however, should not result in returning letters to well-known people merely because they have no street or postoffice box address on them, but it should result in these towns and cities being furnished with a sufficient number of postal clerks to handle the matter expeditiously and according to the law.



## DOUBLE-TRACK ROAD IN CONGESTED REGIONS SOLUTION OF HIGHWAY-TRAFFIC PROBLEM.

**H**IGHWAY traffic in many sections of the country is now reaching such proportions that even modern roads constructed within recent years are becoming inadequate to handle it. This condition exists not only in the more thickly populated centers of the North and East, but highway congestion is likewise becoming a problem for other communities, particularly in the South.

In a recent editorial the MANUFACTURERS RECORD told of the proposed construction in England of a \$73,000,000, 226-mile highway connecting London with Liverpool as suggesting a pace for road construction in the more congested sections of this country. The road is to have no cross-roads and pass through no towns, and will be a double highway, with one road for fast traffic and the other for slow traffic.

Commenting on the MANUFACTURERS RECORD's suggestions that highways must be enlarged in this country, the Gastonia Gazette editorially endorses some suggestions made by the Charlotte Observer in the following:

"The Charlotte Observer finds the item 'interesting as indicating the drift of things in the highway world,' and also that it 'revives the proposition of Commissioner Wilkinson for a double-track through highway between Charlotte and Gastonia to sustain the heavily developed traffic between these two points.' When this proposition was first advanced there were some who were inclined to look upon it as an impossible idea, but observation of conditions has led to revised opinion, for the one road which serves the two places is becoming more and more crowded. The Wilkinson through highway between Charlotte and Gastonia is one of the certain institutions of the future. And it will perhaps mark the beginning of broader roadway construction in the state. It is but a short time when the highway between Greensboro and High Point must be doubled in width, but in the Charlotte-Gastonia case the new road and a widened old road is the more practical solution."

The Washington Times and the Baltimore News have likewise endorsed the MANUFACTURERS RECORD's suggestion that if England can build a highway costing \$325,000 a mile, surely it is time for the United States, having more than 85 per cent of the automobiles of the world, to consider some plan for relieving the congestion on the highways of this country, and the Baltimore News in an editorial "For Washington-Baltimore Parkway Boulevard" states:

"It is very gratifying to find the Washington Times throwing the full weight of its valuable influence behind the proposed parkway boulevard between Washington and Baltimore. This boulevard would not only meet the increasing needs of traffic, but would provide a magnificent entrance to the National Capital. 'It is a goal we must attain,' says the Times.

"Attention is called to the fact that the area between Washington and Baltimore is being rapidly built up, and there is an increasing destruction of the natural beauties. All this should stir public interest in the project.

"The proper improvement of the country between Baltimore and Washington has been discussed for many years. William M. Ellicott planned a great park reaching from one city to the other and merging its lines into the parks of both. This proposition has won much favor. The chief objection to it is that it seems much too big for the existing state of public sentiment.

"The Times quotes from an editorial in the MANUFACTURERS RECORD detailing the plan of the late B. N. Baker for a great highway 1000 feet wide, with park space in the center and state buildings along the way. There are other suggestions, all interesting, but the Times inclines to the plan laid before the Baltimore Rotary Club by Col. C. O. Sherrill, Director of Public Buildings and Public Parks of the District of Columbia. This calls for a highway 320 feet wide between the two cities.

"Of course, it would cost a lot of money. Maryland has spent over thirty million dollars on roads which are used by Washington people and visitors to Washington. As the new boulevard would serve the National Capital, there is no good reason why the Government should not foot most of the bill."

## WE CANNOT ALL AGREE.

**S**OME people like one thing, some another. Some people believe in Prohibition and some do not. Some believe in cancelling foreign obligations and some do not. Three letters which were laid upon the writer's desk one morning illustrate the varying views on different subjects.

J. M. Branom, cashier of the Planters and Merchants National Bank, Commerce, Texas, in renewing his subscription for two years writes as follows:

"We consider the MANUFACTURERS RECORD the best magazine printed. There is never any doubt as to where it stands on any question affecting the welfare of the entire country."

On the other hand, the Dixie Bond & Mortgage Co. of Yadkinville, N. C., discontinues its subscription because "your views on foreign obligations are nauseating." Well, perhaps they may be to the Dixie Bond & Mortgage Co., but they are not nauseating to a good many other people who, we doubt not, have given as much serious thought to the subject as have the officers of that company. One goes one way and one goes another, but the MANUFACTURERS RECORD expresses its own deep convictions without fear or favor and without regard to whether its views meet the commendation or the condemnation of its readers. It holds to the theory that an independent newspaper must have opinions based on honest study of every question it discusses, and that it must express these opinions whether they are in harmony with the views of readers or not.

And now comes W. E. Norvell, Jr., of Nashville, Tenn., who refuses to renew his subscription for the following reasons:

"I feel that Prohibition, and particularly Prohibition by National Constitutional Amendment and legislation, violates an old democratic principle of local self-government and evades all sumptuary legislation and has caused great disrespect for law. In the recent past your magazine seems to have become an advocate of Prohibition, and, feeling as I do, I would not care, of course, to further a magazine or cause, even in a very small and feeble way, that I do not believe in."

Let us say for the benefit of Mr. Norvell that in subscribing to this paper he is not doing anything to "further a magazine." We have never yet had to ask subscriptions on the basis of helping the paper. Mr. Norvell does not believe in Prohibition, millions of people in this country do, and many of them are among the ablest and foremost thinkers of all kinds identified with every phase of American life. The American people voted in favor of the Eighteenth Amendment, but that Amendment is not causing "disrespect for law" to which Mr. Norvell refers. Although he is an attorney, he has studied the history of this country to a very limited extent if he is not familiar with the growing lawlessness in America long before the Prohibition Amendment was adopted. Against Mr. Norvell's views we place the statements in this issue from many of the foremost business and professional men in America that National Prohibition was an advance step of immeasurable economic and moral value.

## "OFFICIAL" SENTIMENT MAY NOT REPRESENT THE NATION'S REAL SENTIMENT.

**T**HE Progress Index of Petersburg, Va., in republishing a recent statement in this paper about the cancellation of the Allies' debts, said:

"There is little or no 'official' sentiment in America in favor of the cancellation of debts owed us by our former associates in the war. But undoubtedly there is a great deal of such sentiment outside of official circles. Eventually this may develop to such an extent that Congress will be compelled to take cognizance of it in the form of legislation modifying, at least, the burden resting on the shoulders of those by whose side we fought in the World War."

## SMALLER LUMBER PRODUCTION IN 1924— HALF OF COUNTRY'S OUTPUT COMES FROM THE SOUTH.

THE lumber production in the United States last year for all mills cutting 50,000 feet or more, according to preliminary figures issued by the Census Bureau, was 35,930,986,000 board feet, compared with the production of 37,165,505,000 feet in 1923. This is a decrease of 3.3 per cent. In 1922 the country's lumber output was 31,568,888,000 feet, 26,960,864,000 feet in 1921 and 33,798,800,000 feet in 1920.

Of the 29 states, each of which reported the production of more than 150,000,000 feet of lumber in 1924, 19 showed a smaller cut than for 1923. The decrease was shared by all producing regions of the United States, although the percentage in the South was smaller than for the rest of the country.

The two predominating woods were yellow pine and Douglas fir, which contributed 34.7 per cent and 20.8 per cent, respectively, of the total production for the year. Seven kinds of wood contributed more than 1,000,000,000 feet each to the total cut in 1924. Four of these showed decreases and three increases as compared with production for the previous year.

### PRODUCTION OF LUMBER BY PRINCIPAL KINDS OF WOODS, 1924.

Kind of Wood.	Quantity (Feet B. M.)	Per Cent Distribution.
Yellow pine.....	12,486,590,000	34.7
Douglas fir.....	7,461,750,000	20.8
Western yellow pine.....	2,602,710,000	7.2
Oak.....	2,076,977,000	5.8
Hemlock.....	1,878,989,000	5.2
White pine.....	1,530,675,000	4.3
Red gum.....	1,070,724,000	3.0
Cypress.....	877,120,000	2.4
Maple.....	857,253,000	2.4
Spruce.....	717,375,000	2.0
Redwood.....	604,292,000	1.7
Birch.....	381,567,000	1.1
Yellow poplar.....	350,727,000	1.0
Cedar.....	330,270,000	0.9
White fir.....	319,145,000	0.9
Chestnut.....	312,989,000	0.9
Larch.....	305,546,000	0.8
Sugar pine.....	245,688,000	0.7
Tupelo.....	235,259,000	0.6
Elm.....	209,439,000	0.6
Basswood.....	200,456,000	0.6
Beech.....	194,444,000	0.5
Ash.....	183,149,000	0.5
Cottonwood.....	166,913,000	0.5
All other.....	330,939,000	0.9
Total.....	35,930,986,000	100.0

Last year 1138 mills produced 2,961,200,000 laths. Washington was the leading state, with over 646,000,000 laths; Oregon ranked second, with 344,000,000 laths; Louisiana third, with 330,500,000 laths; Minnesota, fourth; Mississippi and Florida ranked fifth and sixth, respectively, in lath production.

Shingle production in the United States last year was 6,862,385,000. Washington, as in lath production, was the leading state in the production of shingles; Oregon second and Louisiana third.

The ten leading states in the production of lumber in 1924 were: Washington, with an output of 6,267,343,000 feet; second, Oregon, 3,665,547,000 feet; third, Louisiana, 3,396,940,000 feet; fourth, Mississippi, 2,806,975,000 feet, followed in order by Alabama, California, Arkansas, Texas, Georgia and Florida. Only thirteen states in the country produce more than one billion feet annually, and eight of them are in the South.

The South continues to furnish about half of the lumber cut of the country. The total output in 1924 was 17,962,600,000 feet, or a decrease of 1.3 per cent, compared with the 18,199,832,000 feet produced in the South in 1923. Since 1923 the decrease in the rest of the country outside of the South has been 5.3 per cent. The lumber production of the South in 1922 was 15,890,134,000 feet, 14,934,541,000 feet in

1921 and 16,620,200,000 feet in 1920. Five Southern states reported increased production of lumber last year over 1923.

Of the 14,538 sawmills reported by the census as annually cutting 50,000 feet or more of lumber in 1924, 8580, or nearly 60 per cent, of the country's total sawmills, were in the Southern states.

### PRODUCTION OF LUMBER IN THE SOUTH, BY STATES.

States.	Mills Reporting.	Lumber Cut (Feet)* 1923.	1924.	Per Cent Increase.
Alabama.....	1,060	1,786,493,000	1,873,403,000	4.9
Arkansas.....	570	1,537,533,000	1,536,255,000	-0.1
Florida.....	219	1,110,333,000	1,089,429,000	-1.9
Georgia.....	1,030	1,149,391,000	1,206,599,000	5.0
Kentucky.....	345	196,033,000	193,879,000	-1.1
Louisiana.....	322	3,554,212,000	3,396,940,000	-4.4
Maryland.....	185	62,571,000	68,110,000	8.8
Mississippi.....	847	2,690,976,000	2,806,975,000	4.3
Missouri.....	280	178,810,000	188,426,000	5.4
North Carolina.....	1,120	1,095,925,000	1,071,912,000	-2.2
Oklahoma.....	79	136,174,000	154,503,000	13.5
South Carolina.....	453	1,070,397,000	878,517,000	-17.9
Tennessee.....	607	661,436,000	658,888,000	-0.4
Texas.....	228	1,559,263,000	1,528,490,000	-2.0
Virginia.....	954	770,771,000	696,054,000	-9.7
West Virginia.....	281	639,514,000	614,280,000	-3.9
Total.....	8,580	18,199,832,000	17,962,660,000	-1.3
United States.....	14,538	37,165,505,000	35,930,986,000	-3.3

\*Does not include production of mills cutting less than 50,000 feet annually.  
—Decrease.

## NO ECONOMIC COMBINATION OF EUROPE AGAINST AMERICA.

RECENT events in Europe have caused a number of Americans to imagine that Europe will combine in some economic fight against this country. There is not one-half as much danger of that ever being done as there was 25 years ago, when the heavy shipments from this country to European countries caused an active agitation on the part of many political economists in Europe in behalf of all European countries combining in some economic way against the United States in order to keep us from capturing the trade of the world. The suggestion was made by serious-minded men, but, of course, was wholly without any justification.

It is equally absurd to imagine that because we did not join in the League of Nations we are going to be boycotted by Europe in any way whatever. If the League of Nations functions for the purpose of maintaining peace in Europe, it will be well, and the American people can afford to congratulate Europe upon such a happy event. But that in no way whatever indicates that this country should have joined the League of Nations. That is a European problem, not an American problem, and the more thoroughly we keep out of political entanglements in Europe, the better it will be for us, and in the end for the world.

In closing a lengthy editorial on this subject the Boston Transcript said:

"In the meantime, no matter how many faces Europe makes at us, we have every reason to be glad to see the trans-Atlantic nations get together in sympathy. The more nearly they promote the success of their League of Nations, the more completely are they justifying our action in staying out of it, because by this measure of success they are proving that our participation is not necessary to the League's success. Never should we have joined that League save possibly for the purpose of helping Europe out, for there is no advantage in it for us. No man, and no nation, joins a partnership except to overcome some obstacle or gain some end that he or it cannot overcome or gain alone. What American has ever opposed a League of Nations for Europe? None that we have ever heard of. There is no real political menace for America in the Locarno agreement. And so far as the economic menace is concerned, is it not patent that the more peaceful and better agreed Europe is, and the less she wastes in war, the more buying capacity she will have for the American products that she needs?"



### THE HARD-COAL STRIKE AND HOW IT MAY BENEFIT SOFT COAL FROM THE SOUTH.

THE strike of the anthracite coal miners in Pennsylvania is one of the most interesting of labor movements, in that it promises to be the last straw to break the back of the camel, which in this instance in the long-suffering public living within such distances of the mines as to make use of this fuel natural and convenient. Very many individuals now living can remember when the base retail price of hard coal (anthracite) in Baltimore and Philadelphia—which cities are about equi-distant from the railroad distributing points in the mining regions—was only \$5 per ton; now it is \$15, or, rather, it was \$15 before the strike began; now it is anything which dealers can get for it, as the shortage has caused customers to bid against one another in order to obtain supplies.

Most of the advance in the price of anthracite coal has occurred since 1912 or 1913, and has been the result of successive strike movements and adjustments which were always largely in the miners' favor. Even as late as 1917 the price was less than half of what it is today.

But now an unusual thing has been done; the owners and operators are becoming alarmed. They are publishing over the name of the Anthracite Operators Conference of Philadelphia a lengthy statement concerning the pay of miners in their employ, saying that some miners receive more than \$500 each for a month's work, this being what is in their pay envelopes after all deductions for supplies and pay of their laborers, for each skilled miner has a laborer or helper on his work. It is further explained that earnings which are not selected show that 921 men worked 275 days in a year and received \$3947 each, or \$14.33 a day, and following are fourteen other gradations downward until the lowest prices are reached that show how 1439 men worked 261 days and received \$2151 each, or \$8.25 a day. This was for last year, and the average earnings of 18,957 contract miners are stated as \$2437.70 for the year, and that they worked an average of less than six and three-quarters hours per day. Such mine employes as were paid by the day received an average of \$1717.10 for their year's work. Yet the miners are now striking for an increase of 10 per cent for the contract miners and for \$1 a day more for the men paid by the day.

Apparently what has stimulated the owners and operators to make this widely published statement is the fear that prices of anthracite coal have reached such peaks that the public will turn to bituminous coal or to oil for fuel, and if there once came about a general change, accompanied by alterations in furnaces, stoves and grates for the use of the soft coal, it would be difficult to persuade people to resume the use of anthracite, especially in view of the much lower price of bituminous. Samuel D. Warriner, chairman of the Anthracite Operators Conference, is quoted in the New York Commercial as saying that the hard-coal industry is not prosperous with some few exceptions, a large part of the production last year having been marketed at a loss or no profit at all. Mr. Warriner is also reported as saying that the common or most unskilled adult labor above ground is paid a minimum of over 57 cents per hour—nearly 58 cents.

There thus exists an opportunity for Southern bituminous coal to wedge itself into the Northern fuel market for domestic purposes. Since the great advance in the price of hard coal began—within the last four or five years—some private consumers have taken to using soft coal for their heaters with success and satisfaction, which was something of a surprise to them, for many of those individuals accustomed to burning anthracite did not realize that the people of by far the larger part of this country have to depend upon bituminous coal as fuel for their kitchen ranges as well as for their private heating plants, whether heating

is done by direct hot-air methods or by steam or hot-water radiation. That the use of bituminous coal will extend in what have heretofore been exclusively hard-coal-burning regions is not to be doubted. Improved methods of burning the soft coal will aid this development; besides, there are some varieties of bituminous that are notably excellent as domestic fuel even in close comparison with anthracite, and they have the distinct advantage of being free from stone, slate and clinker, which are nuisances that the consumer of anthracite always has to experience in some degree.

### DOES NOT REPRESENT THE CHURCHES.

A DISPATCH to the New York Times states that the Rev. Dr. Charles Scanlon, secretary of Moral Welfare for the Presbyterian Board of Christian Education, has vigorously denounced the report on Prohibition of the so-called Federal Council of Churches. In closing his statement on the subject Dr. Scanlon said:

"In view of the foregoing facts and the situation as known by most people, it is only just to say:

"That the Federal Council's report does not fairly represent the Protestant churches of this country.

"The facts on which it is based are incomplete and inconclusive and unconvincing.

"The absence of any suggested method of dealing with the subject more satisfactorily betrays a lack of confidence in our form of government or in the integrity and courage of the American people to enforce just and wise decrees orderly enacted.

"The liquor traffic scruples at no corruption, no injustice, no degradation. It is fundamentally treasonable in spirit and in practice, and we sincerely regret that an agency which nominally and actually represents such a large section of the religious forces of this country as the Federal Council does should use its position and interpret the situation so as to discourage the moral forces of the nation upon the basis of an inquiry which contradicts the experience and testimony of so many reputable bodies and representative individuals."

There is only one point on which we take issue with Dr. Scanlon, and that is we do not agree with him that the Federal Council represents a large section of the religious forces of the country. We think it thoroughly misrepresents them.

### INDUSTRIAL DEVELOPMENT NEEDED IN FLORIDA.

AT last the people of Florida, the newspapers and commercial organizations are beginning to realize the truth which the MANUFACTURERS RECORD has long been preaching, that for a continued development commensurate with what is now going on there must be industrial growth as a foundation on which to maintain continued, permanent prosperity.

Florida has many advantages for industrial interests. It has great resources for manufacturing. The attention of its people has so long been concentrated upon vast real estate operations and the building of towns, based on tourist business, that too little attention has been given to manufacturing interests. This subject is now beginning to attract much attention in Florida. People are realizing that industrial development is essential in the maintenance of the largest prosperity of the state. No community can go on dealing indefinitely in land and maintain its prosperity without the creation of industries to furnish employment to people. Florida is now getting on the job. State officials, the legislature, the newspapers and every commercial organization in the state ought to bend every possible effort upon the development of manufacturing throughout the state.



# Slanders Against Prohibitionists Refuted.

## Strict Obedience to the Prohibition Laws by Great Business Leaders, Educators, and Others.

Under the heading "Prohibition Has Justified Itself" the MANUFACTURERS RECORD recently published several hundred letters from leading college and university presidents, physicians of international standing, large employers of labor and others giving their overwhelming testimony in favor of Prohibition and a more rigid enforcement of the Prohibition law.

Slandorous statements have been made by many who oppose Prohibition that the men who wrote these letters, and especially the employers of labor, do not themselves comply with the Prohibition laws. The New York Times, for instance, published what it editorially said was not only "a snappy but a snappish" letter, in the course of which the writer stated: "I'll bet, if the truth were known, they would be found 'getting theirs regular' all right in spite of their Prohibition bunk." Editorially commenting on that letter, the Times said: "Though these suggestions might be worded more kindly, they are not without interest, and the information they demand certainly would be of some value in the great controversy. Perhaps the MANUFACTURERS RECORD will be moved to get it."

If such a suggestion had appeared in a paper of less prominence than the New York Times, it would scarcely have needed consideration. It is a reflection upon the honor and integrity of several hundred of the foremost men of the United States—men who for years have stood out among the leaders in educational and in medical work, as well as employers of labor. However, the MANUFACTURERS RECORD accepted what was practically this challenge to inquire into the personal affairs of the writers of the letters we published. It was a delicate proposition to put to them, and because of the extremely personal nature of the inquiry it is not surprising that two or three of these men who say emphatically that they do not use intoxicating liquors of any kind at home or outside felt justified in refusing to permit us to use their names. They frankly said that they regarded such an intimation as that in the Times as an insult which should be ignored. On the other hand, others have thanked the MANUFACTURERS RECORD for putting out this new questionnaire, as it gave them the opportunity of saying definitely to the public at large that they adhere in the strictest sense to the Prohibition law, which they have never violated since it was passed.

We had hoped to publish these letters in full in the MANUFACTURERS RECORD, but so overwhelming has been the response so far that there are enough to fill about 30 pages and the replies are still coming in. These letters will, therefore, be published in pamphlet form under the heading "The Slanders Against Prohibitionists Refuted," though a summary of them is given in the following pages.

Hypocrite! hypocrite! has been the cry of the "wets" against the "drys" ever since the days of local option in the march toward National Prohibition. This accusation and other false charges and insinuations of like character have usually been ignored and treated with the silent contempt they so richly deserve. But for so long have these slurs upon the integrity of prohibitionists gone unanswered that the advocates of the liquor traffic have grown bolder, and presumably, instead of being doubters, have made themselves and some unthinking people believe that all prohibitionists are liars and hypocrites.

So much loose talk and so many charges against these

advocates of Prohibition as being hypocrites, and as the writer in the New York Times said "getting theirs regular," have been made by the "wets" in doing all they can to break down the Prohibition law, the editor of the MANUFACTURERS RECORD, to get at the facts and be able to set them before the public, accepted the challenge of the Times and wrote to everyone who contributed to the symposium "Prohibition Has Justified Itself" the following letter:

Dear Sir:

The New York Times, in an editorial on the recent letters published by this paper in favor of Prohibition, has the following:

"A Times reader who evidently has not been very sympathetic with the contribution made by the MANUFACTURERS RECORD to the literature of Prohibition—or with the comments on that contribution appearing in this column—sends in a snappy, not to say snappish, letter, in the course of which he writes:

"Might I suggest that your enterprising Baltimore editor continue his studies of the Prohibition question from a different angle? He might, for instance, get the opinions of workingmen. Why should they not be heard as well as their employers? Also, an inquiry might be addressed to those eminent men, employers of labor, etc., as to their personal attitude toward the Demon Rum. I'll bet, if the truth were known, they would be found 'getting theirs regular' all right in spite of their Prohibition bunk."

"THOUGH THESE SUGGESTIONS MIGHT BE WORDED MORE KINDLY, THEY ARE NOT WITHOUT INTEREST, AND THE INFORMATION THEY DEMAND CERTAINLY WOULD BE OF SOME VALUE IN THE GREAT CONTROVERSY. PERHAPS THE MANUFACTURERS RECORD WILL BE MOVED TO GET IT."

If such a suggestion had appeared in a paper of less prominence than that of the New York Times this comment would scarcely have needed consideration. In view, however, of the position of the Times as one of the great daily papers of the country, I feel justified in inviting your attention to this editorial as quoted above.

The assertion that is being constantly made that many advocates of Prohibition are themselves violators of the Prohibition laws must be my excuse for inviting your attention to the editorial suggestion of the Times.

I cannot undertake to inquire into strictly personal matters, as suggested by the Times, but nevertheless I am sending copies of this letter to everyone who recently wrote me in favor of Prohibition, with the suggestion that if you care to make any reply or comment your views will be greatly appreciated, and will throw much light upon this subject.

EDITOR MANUFACTURERS RECORD.

Not only have the replies to the slander that these men were themselves violating the law shown a remarkable unanimity of opinion in regard to the necessity of everyone obeying the law, but they further stress with unusual emphasis the great benefits derived under Prohibition, from the economic as well as from the moral standpoint, even in the face of inadequate law enforcement.

These letters have come from men whose standing in the professional and business world no one can question; they emphasize more forcibly than has ever been done before, because such an opportunity was never before presented, their own strict obedience to the Prohibition laws. We regret that two or three of the writers have regarded it beneath their notice to reply for publication to the question raised in the Times. For instance, a distinguished United States district judge in his letter said: "I never drink; I have never violated the Prohibition law, and for the last 10 years there

has not been a drop of intoxicating liquor in my house, and yet," he added, "I do not think it worth while to pay any attention to the cowardly practice of newspapers in making by innuendo reckless and baseless charges, and insolently demanding that the persons so charged shall prove themselves innocent." A professor of political science in one of the foremost universities in the United States regarded the inquiry "as a reflection on those who contributed to the symposium to inquire into their personal habits and doubted the propriety or utility of this investigation." A New England business man of large interests wrote: "I happen to have been a teetotaler all my days," and yet for reasons similar to those of the preceding correspondent did not want his name to be published.

President Edgerton of the National Association of Manufacturers, who is also president of a large manufacturing company in Tennessee, like many other manufacturers from whose letters we are quoting in the following pages stands out emphatically as obeying to the extreme the Prohibition laws. It is hardly necessary to say that Judge Gary of the United States Steel Corporation does not indulge in intoxicants, and the unanimity of the replies is the most remarkable testimony which has yet been made public to the fact that the leaders in this country who favor Prohibition are themselves rigidly obeying the Prohibition law.

In the olden days when Dow and Gough and other fighters for temperance were carrying on their tremendous campaign throughout the country, it was a recognized fact that some of the very men who even drank to excess under an evil power which they seemed not to be able to overcome were unceasing in their denunciation of the whisky traffic. From their own experience they realized its tremendous evil. They fought its power in their own lives, and they fought to arouse the country to the evil of the whisky business. There have been a few sad examples of the power which whisky had over a few Prohibition advocates, but with an insatiable longing that they themselves and the people of the country might escape its influence they appealed in behalf of Prohibition. It is possibly true that today there may be advocates of Prohibition who themselves do not always "practice what they preach"; some of them doubtless find themselves under the control of a habit which they have not yet been able to break, but they want to see the accursed traffic stopped that they and others may be made the safer thereby. It would not be surprising if this were true. That would in no way whatever be an argument against Prohibition; indeed, it would be a tremendous argument in favor of it.

But the roll-call of the men whose letters we published in behalf of Prohibition, and whose letters we are summarizing in the following extracts, is a list of leaders in American life who stand out pre-eminently among the people of this country as foremost among medical men, college and university presidents and business men generally. Take, for instance, the letter from a famous builder of automobiles and Liberty motors, Detroit's "Grand Old Man," Henry M. Leland, who sets forth the truth about the fight against Prohibition in the following:

Detroit, Mich., October 23.

*Editor Manufacturers Record:*

**I have never violated the Prohibition laws in any way, shape or form.**

I was an ardent and constant advocate of the passage of the Eighteenth Amendment, and believe was able to help materially in its passage in Michigan, and I have never for one moment regretted the time, money and effort put forth in this cause. There can be no question of the great good accomplished by the passage of this Amendment. At the time of its passage I was the head of the Cadillac Motor Car Company, which I organized in 1902. When we entered the World War in 1917 I severed my affiliation with the Cadillac Company in order to build Liberty Motors for airplanes for the Government, making 6500 of these wonderful engines.

After that we developed and brought out the Lincoln automobile. During most of this time we employed from five to six thousand men.

As an indication of the immediate and remarkable effect of the passage of this Amendment, I will state that for years previous to the passage of this Amendment on each Monday morning there were from three to five hundred men absent endeavoring to sober up from the effects of the Saturday night and Sunday drinking and debauchery. This was a most serious and difficult situation to handle and keep the plant operating advantageously. Hence it made a distinct and lasting impression upon the minds of the foreman and the management.

Now comes the most remarkable result of the passage of the Eighteenth Amendment. Immediately after it went into effect this Monday morning delinquency was entirely eliminated. Monday morning became like any other morning—the men were all at work, the saloons were closed and the men were spending their money to provide for the needs and necessities of their families instead of wasting their money, disturbing the peace of the community and indulging in all kinds of debauchery and even criminal acts. The contrast was most remarkable.

As the months went on the distillers and brewers and saloonkeepers and the so-called "wets" got together and organized to destroy the good work being done. There has never been a lobby in this country so well equipped with influence and funds. There has never been one that has resorted to such low, unscrupulous, and far-reaching methods as has this "wet" lobby. They have no scruple, no conscience, no regard or thought for right or wrong. They will invade, if they can, the most ideal and Godlike home, destroy the love, esteem and confidence of the heads of that household, even making drunkards of the children if they can. They do not hesitate to make a hell-hole of the most Godlike institution in the community, all to advance their selfish and nefarious schemes. They do all this and a thousand other infamous things in their attempts to destroy the Eighteenth Amendment, which, in my judgment, if left to work out its own beneficent ends, is the greatest boon to the American people they have ever enjoyed.

This lobby has bribed officials, small and great. It has done everything in its power to make drunkards and vagabonds of the young of both sexes. It has succeeded in getting for patrons some of our hitherto respected and important citizens. In all the past ages the Devil has never found so powerful a coadjutor having such large resources and wealth without limit. Without scruple or question they go merrily on in their determination to ruin the homes and business of this country, and the Devil is laughing as he never laughed before.

However, they will not be able to accomplish their nefarious purpose. There are too many people in this country who are endowed with sanctified common sense, and who can see through these nefarious plots. They will stand like adamant to oppose and defeat the legions of the lower world who are attempting to force upon our fair and beneficent country this greatest of curses.

I am now in my eighty-third year and have been a strong advocate of temperance and an enemy of the distillery and the open saloon all my life—and I have never been stronger for these life-long principles and practices than I am today.

HENRY M. LE LAND.

The force of these letters as a whole is even more powerful in their influence for good in behalf of Prohibition and for setting right the thought of the country than were the hundreds of letters we recently published in part in the *MANUFACTURERS RECORD* and in full in the pamphlet "Prohibition Has Justified Itself."

We have met the challenge of the New York Times, and in these remarkable answers we have found justification for putting such a direct personal question to men, some of whom felt that the very question itself suggested by the Times was most unwise as an intimation that they were preaching what they did not practice.

To those to whom these letters were sent and who have so fully replied we can but offer an apology for such a purely personal question as we put to them and on behalf of every prohibitionist in the country extend our profound appreciation of the service which they have rendered to America and



to the world by the frankness and the fullness of their replies.

Coincident with the appearance of this summary of letters there will be issued by the Manufacturers Record Publishing Company a pamphlet covering the letters in full; its wide circulation throughout this and other countries by people interested in Prohibition would be rendering a service of inestimable value to the moral forces of the world.

Carl R. Gray, president of the Union Pacific Railway, Omaha, Neb., one of the greatest railway men in this country, managing one of its greatest railways, in reply to our inquiry wrote as follows:

"I do not drink and have not done so for many years—in fact, ever since I have had direction of trainmen and engineers. Regardless of any other feeling in the matter, I simply did not have the 'guts' to discipline men for something that I did myself."

J. E. Edgerton, president and general manager, Lebanon Woolen Mills, Lebanon, Tenn., and also president of the National Association of Manufacturers, one of the outstanding business organizations of the country, is a prohibitionist in fact as well as in name, and writes:

"Regardless of the stubbornness of the opposition, and the multiform devices used by them to defeat progress in good morals, we should go resolutely ahead undiscouraged and un intimidated. I resent the suggestion that the wage-earning masses in America are anti-prohibitionists. I fully believe that if it were submitted to the toiling people of the nation they would overwhelmingly be in favor of forever abolishing the worst enemy that the workingman has ever had."

Courtenay Guild, editor, the Commercial Bulletin, Boston, Mass.:

"A man whose brain is clouded by alcohol may find it difficult to understand the truth, to believe the truth or to tell the truth, so it may seem a waste of time to answer the charges of men whose letters in the daily papers state that defenders of the Eighteenth Amendment are 'getting their regular.' I have not tasted intoxicating liquor for over a quarter century, and it is not served in my home."

Haven Emerson, M. D., Department of Public Health Administration, College of Physicians and Surgeons, Columbia University, New York:

"Neither at my family table nor elsewhere in this country have I used alcoholic beverages since the passage of the Volstead Act."

Clarence H. Kelsey, chairman of the board, Title Guarantee & Trust Co., New York:

"If I had used it before the law was passed, I hope I would have strength of character and sense of duty enough to have obeyed the law whether I liked it or not."

W. H. Cowdery, president, American Fork & Hoe Co., with factories in 12 cities, Cleveland, Ohio, makes the following striking statement:

"I have not taken a drop of liquor of any kind since the Prohibition Act. I believe that the same may be said of nearly every one of our directors and officers, as well as the managers of our factories."

J. B. Johnston, dean, College of Science, Literature and the Arts, University of Minnesota, Minneapolis, writes that since the Prohibition law went into effect he has neither bought, transported nor drank a drop of any kind of intoxicating liquor.

James Schermerhorn, editor, Detroit Times, Detroit, Mich.:

"I have been too happy, too proud of my country over its taking the greatest moral step in the history of mankind to depart in any degree from the total abstinence that I felt was due my family, my friends and my countrymen generally. I would as soon do business with a counterfeiter, a white slaver or drug smuggler as to patronize a blind pig or a rum-runner. I look upon it as the normal attitude of every citizen who loves the flag sufficiently to renounce something for it—

and for his overtempted fellow-citizen if need be—especially as this renunciation is better for his own power to produce."

B. B. Comer, former Governor of Alabama and now president of the Avondale Mills, Birmingham, Ala., writes that he has not used intoxicating liquors of any description since the first state-wide Prohibition law in Alabama, and that his family, a large one, are total abstainers. And he quotes the following striking statement made by John G. Cooper of Ohio, a member of the Brotherhood of Locomotive Engineers:

"Prohibition is making a capitalist of the worker, creating a general ownership of the means of production and solving a strife that once seemed perpetual. When the saloon closed the 'poor man's club' may have vanished, but we are replacing it today with comfortable homes, fine labor temples and a chain of strong labor banks."

R. A. Schoolfield, chairman of the board of that great Southern textile plant, the Riverside and Dan River Cotton Mills of Danville, Va., writes:

"I emphatically state that I do not use intoxicating liquors either for medicinal purposes or as a beverage. My information is that a large part of the propaganda put out by the 'wet' people is to bring into disrepute the Eighteenth Amendment and make it non-effective, for personal gain, and in pursuance of this policy they are disposed to measure others, who differ from them, by their own yardstick."

James C. Egbert, School of Business, Columbia University, New York, states:

"I am a strict observer of the law, which, I believe, is already proving itself to be fraught with inestimable blessings to the American people."

Harry H. Willock, Waverly Oil Works Co., Pittsburgh, writes that he is a total abstainer.

C. Edwin Michael, president of the Virginia Bridge & Iron Co., Roanoke, says:

"I have never violated the Prohibition law since it was enacted in the purchase of any alcoholic liquors, nor did I have any stock of such liquors on hand at the time of the adoption of the Amendment or since."

L. P. Hollis, superintendent, Parker School District, Greenville, S. C.: "I am a teetotaler."

J. W. Marsh, Standard Underground Cable Co., Pittsburgh:

"I neither buy nor use liquors of any kind and have no 'stock on hand.'"

LaMont M. Bowers, Binghamton, N. Y., offers from \$1000 to \$100,000 to anyone who can show that in 58 years of active business, employing thousands of men in various industries, he ever drank a drop of liquor, beer or wine, except at the communion table in the sacraments.

J. S. Bachman, superintendent, Anchor Duck Mills, Rome, Georgia:

"There is no law not violated, and one class or the other is the aggressor. Men should be big enough and broad enough in choosing between two evils to take the lesser, and whether the New York Times' editor will admit it or not, there is less drinking in the United States today than ever before, even by the class to which he refers."

Henry Louis Smith, president, Washington and Lee University, Lexington, Va.:

"To my mind the most forceful advocate of Prohibition is the hopeless and helpless inebriate who insists on voting for Prohibition that his fellow-citizens of like weakness may not fall into the pit which has engulfed him."

Wm. R. Nicholson, president, the Land Title & Trust Co., Philadelphia:

"As a large employer of labor, I obey the Prohibition law and help to enforce it."

John Harvey Kellogg, M. D., superintendent, the Battle Creek Sanitarium, Battle Creek, Mich.:

"Anyone who has eyes half open can see that the country has profited immensely by Prohibition."

William T. Foster, Pollack Foundation for Economic Research, Newton, Mass.:

"Even if it were true that every man on the list you have



published of those who favor Prohibition himself violated the law, I should still regard the testimony of these men as sound evidence in support of the argument that the law was on the whole beneficial to the country."

Aug. W. Smith, president and treasurer of the Brandon and Poinsett Cotton Mills, Greenville, S. C.:

"I adhere to the principle of Prohibition strictly."

E. J. Stackpole, president, Harrisburg Telegraph, Harrisburg, Pa.:

"No reasonable person will maintain for a moment that Prohibition is a perfect law. Of course, there are those who will always fail to practice what they preach, but for the most part the body of men and women who favor Prohibition as a great step forward is certain to increase with the evidence piling up on every hand of its widespread benefits."

Huston Quin, Mayor of Louisville, Ky:

"I am not only a believer in Prohibition, but personally abstain from all intoxicating liquors."

William Lowe Bryan, president, Indiana University, Bloomington, Ind.: "I have all my life been a teetotaler."

John W. Sibley, general sales manager, Birmingham Clay Products Co., Birmingham, Ala.:

"Every man in our office and that of our associates, the Rust Engineering Co., is an avowed advocate for retaining the present Prohibition laws, and I believe that if a vote were taken an overwhelming majority of our employees would vote in favor of Prohibition."

F. M. Hodge, president, Kalamazoo Paper Company, Kalamazoo, Mich., says he never expects to be a drinker of liquor.

Amos P. Wilder, associate editor, New Haven Journal-Courier, New Haven, Conn., writes that he does not know the taste of liquor.

Harvey W. Wiley, M. D., director, Bureau of Foods, Sanitation and Health, Good Housekeeping, Washington, D. C.: "I have never violated the Prohibition law in any particular."

C. C. Stoll, Stoll Oil Refining Co., Louisville, Ky:

"As a young man, years ago, observing the havoc which the liquor traffic had created in our social and political life, I have consistently refused the use of liquor in any way."

Wm. A. Vawter, 2d, Baker-Vawter Company, Benton Harbor, Mich., writes that he does not have liquor in his house, nor does he drink it away from home.

Simon H. Gage, professor emeritus, histology and embryology in Cornell University, Ithaca, N. Y., says he believes in prohibition for everyone, including himself, and acts accordingly.

W. D. Knight, agent, Quidnick-Windham Manufacturing Co., Willimantic, Conn.:

"I have consistently fought the liquor interests all my life, and have no regrets for having done so, because I have seen so much misery caused by overindulgence, particularly on the part of the workingman."

R. B. Benjamin, president, Benjamin Electric Manufacturing Co., Chicago, writes that he has never formed the habit of using intoxicating liquors and has always been opposed to its use, believing it harmful and useless.

Philo C. Fuller, P. C. Fuller Company, Grand Rapids, Mich., has never bought anything from a bootlegger, nor taken anything served on other peoples' tables since the Volstead Act went into effect.

W. B. Cannon, department of physiology, Harvard Medical School, Boston, has not made use of any alcoholic beverages obtained by illegal or irregular methods.

Arthur Jordan, manufacturer, Indianapolis, Ind., who never uses intoxicants of any kind, reminds us that many men who know the value of Prohibition do drink just the same as many motorists break traffic laws, and yet they know they are necessary for the public's good, which, of course, from a moral standpoint is all wrong, but has nothing whatever to do with the necessity of enforcing all laws.

Richard Lloyd Jones, editor, the Tulsa Tribune, Tulsa,

Okla.: "I do not have liquor in my own house nor in a club locker."

W. H. Metzler, dean, New York State College for Teachers, Albany:

"I have never used intoxicating liquors in any form."

Walter A. Danforth, treasurer, Bangor Savings Bank, Bangor, Maine:

"In my opinion the man who patronizes the bootlegger is a far worse citizen than the bootlegger, for he poses as a law-abiding citizen."

George M. Verity, president, the American Rolling Mill Co., Middletown, Ohio:

"I have always been a teetotaler, as has every member of my family."

D. Robert Yarnall, Chestnut Hill, Philadelphia:

"I do not use intoxicating liquors, nor do we have any such in our home for medicinal purposes."

J. D. Eggleston, president, Hampden-Sidney College, Va., who obeys the Prohibition laws, says:

"All this talk about the laboring man or the workingman being against Prohibition is 'bunk.'"

D. H. Campbell, mining engineer, Iron River, Mich., who writes that he has refused all liquor since Prohibition, quotes the editor of the Iron River-Stambaugh Reporter, who was not in sympathy with the Prohibition movement before its adoption, but who now states there is unquestionably less liquor consumed and less misery due to liquor now than there was when we had licensed saloons.

J. J. Phoenix, president, Bradley Knitting Company, Delavan, Wis.:

"No executive of the Bradley Knitting Company is violating the law, and it is my belief that the sound position thus taken has had its effect upon our entire force."

Arthur H. Hale, president, the First National Bank, Manchester, N. H.:

"I let liquor absolutely alone, and I am thankful to say my children have also let the stuff alone."

Arthur Perry, Arthur Perry & Co., Boston, Mass.:

"The Times reader loses his bet, as I am a total abstainer and doing everything to uphold and make the Volstead Act a success."

Max F. Meyer, Department of Psychology, University of Missouri:

"I am glad that nowadays in my social life I am not constantly put to the task of explaining why I prefer to drink 'something else.' The problem is a professional problem for me; I am much interested in the psychological effects of drugs. It is no 'employer's' problem for me, for I employ no labor but my own."

S. S. Kresge, New York:

"I never used liquor before Prohibition, nor since, nor shall I ever use it under any circumstances."

R. H. Scott, president, Reo Motor Car Company, Lansing, Michigan:

"There are no employers in Michigan of my acquaintance who favor Prohibition and are drinking men themselves."

Charles Piez, chairman, Link-Belt Company, Chicago, Ill., writes that he does not drink because he can remain more physically fit without doing so, and because he does not require artificial stimulation to enjoy life.

Chase S. Osborn, Sault Sainte Marie, Mich.:

"I have been in Europe several times and live on the Canadian border, and I shun it as I would rattlesnake venom."

Charles W. Garfield, chairman, Grand Rapids Savings Bank, Grand Rapids, Mich.:

"The majority of our thoughtful employers are not only honest in their expressed sympathy with Prohibition, but they are practical abstainers, and want their employees to know this."

Wm. H. Thomas, Los Angeles, Cal.:

"Had I been in favor of the liquor traffic before I became

judge, my eight years of experience as judge would have converted me absolutely to the cause of Prohibition and total abstinence."

Upton Sinclair, author, Pasadena, Cal., writes that he is willing to take oath that he has not tasted any alcoholic beverage since the Prohibition law was passed.

Elwood P. Cubberley, dean, School of Education, Stanford University, Cal., states that as a citizen of the United States he does not indulge in intoxicating liquors in this country or out of it.

Charles A. Perkins, College of Engineering, University of Tennessee:

"I did not drink in 1915 and do not drink now."

John S. Bradley, vice-president, Bradley Logging Company, Portland, Ore., is convinced from experience and observation that the use of intoxicating liquors as a beverage is not a necessity, but harmful to the individual both morally and physically.

Mary E. Woolley, president, Mount Holyoke College, South Hadley, Mass., says that in her experience she has never happened to meet advocates of Prohibition who are themselves the violators of the Prohibition laws.

Otis N. Pierce, president, Grinnell Manufacturing Corporation, New Bedford, Mass., does not use beverages containing alcohol since the passage of the law against them.

Henry C. King, president, Oberlin College, Oberlin, Ohio, has always been a teetotaler.

R. T. Jones, president, Canton Cotton Mills, Canton, Ga.:

"There is not an officer of the Canton Cotton Mills who would drink a drop of whisky, nor would he allow it in or about his house, and would do anything he could under the law to drive it from the community."

F. E. Rogers, publicity manager, New York:

"No one likes hypocrisy, and the probability that many men do indulge their appetite for drink is distasteful, but it does not alter the economic question in the least. The fact is that general prosperity and the liquor traffic cannot exist together."

A. S. Warthin, professor of pathology, University of Michigan, Ann Arbor, asserts that he does not use alcoholic liquor.

Howard A. Kelly, M. D., Baltimore, Md.:

"I neither take any liquor of any kind myself nor do I prescribe it for my patients."

Arthur J. Dunton, Bath, Maine:

"I am a total abstainer from the use of intoxicating liquor, and have none and do not obtain any either for medicinal or other purposes."

Edward A. Steiner, Grinnell College, Grinnell, Iowa:

"I do not 'get mine regular' nor do I accept it when it is offered to me by my friends who support the bootleg industry."

Ralph W. Harbison, Harbison Refractories Co., Pittsburgh, Pa., says he has never used liquor.

Charles L. Huston, vice-president, Lukens Steel Co., Montrose, Pa.:

"I have since my early youth been a total abstainer from all intoxicants from conviction of the harm done spiritually, physically and socially to those who use them."

E. V. McCollum, M. D., the distinguished professor, School of Hygiene and Public Health, the Johns Hopkins University, Baltimore, Md.:

"I do not myself use intoxicating liquors in any form, and I should not be willing to keep anyone in my employ who admitted that he would drink intoxicating liquors."

Charles A. Lory, president, the State Agricultural College, Fort Collins, Col.:

"I have had opportunity to watch the results of the liquor traffic and the effects of the saloon since boyhood, and they

were quite sufficient to persuade me that they are a menace to individual health and to the general good."

John S. Baker, president, Baker Manufacturing Co., Evansville, Wis., states that not only he but his officers and directors do not use intoxicating liquors.

Asa S. Wing, president, Provident Mutual Life Insurance Company, Philadelphia, Pa., asserts that he is not only strongly in favor of prohibition for others, but that he strictly observes the law himself.

Woodbridge N. Ferris, United States Senator from Michigan, Washington:

"I practice what I preach in the matter of Prohibition."

W. T. Beatty, president and general manager, Austin Manufacturing Co., Chicago, Ill., says he is not a violator of the Prohibition law in any way, shape or form.

Joseph Sailer, M. D., Philadelphia, Pa., advises he has no stock of liquor and that he has not purchased any since the ratification of the Prohibition Amendment.

C. W. Stiles, professor and specialist in hygiene of the United States Public Health Service, Washington, D. C., does not take alcohol as a beverage and he serves none at his table.

Bird W. Spencer, president, Peoples Bank & Trust Co., Passaic, N. J., is a teetotaler, and he believes that the majority of those who preach prohibition practice it.

H. L. Paddock, president, Oswego Falls Corporation, is an absolute abstainer, as is H. S. Dulaney of Baltimore.

L. C. Mandeville, First National Bank, Carrollton, Ga., writes that he obeys all laws, Prohibition included, and if he did not he would be afraid to drink the stuff that bootleggers are supposed to sell.

Arthur R. Baxter, the Keyless Lock Co., Indianapolis, Ind., states that he does not use intoxicating liquors in any form, and he realized as a boy that spirituous liquors were a dangerous foe, and that as a young man he saw only too clearly from the example of many associates that this was true, and that as a manufacturer he had seen the direful effects of it, not only upon young men but upon old men as well.

A. B. Bryant, president, First National Bank, Gardner, Mass., has always been a total abstainer in the use of intoxicating liquors, and says he was always opposed to liquor traffic because of its injurious effect upon public morals and health.

Winfield Scott Hall, M. D., Ph. D., professor emeritus, Medical Faculty, Northwestern University, and a noted lecturer on eugenics, social ethics, home and health problems, and now head of the Bureau of Social Hygiene of the Board of Christian Education of the Presbyterian Church in the United States, Berwin, Ill.:

"As a teacher in a medical school I have spoken strongly against alcohol for internal use, and my students know that I practice what I teach."

Mornay Williams, Engelwood, N. J., advises that he is a consistent prohibitionist.

T. M. Carver, Department of Economics, Harvard University, Cambridge, Mass.:

"I have been practicing absolute teetotalism, and I expect to continue this practice."

John Walton, Jacob W. Walton & Sons, Frankford, Philadelphia, Pa., who does not drink, considers that Prohibition is one of the most beneficent laws enacted in a generation.

W. S. U'Ren, an attorney of Portland, Ore., writes that he abstains from the use of intoxicating liquors because he believes it the duty of a citizen to respect and obey the law.

H. Tucker Graham, D. D., pastor of the First Presbyterian Church, Florence, S. C., never uses liquor in any form, and asserts that his opposition to its use, and hence to its manu-



facture and sale, is based on economic, physical, moral and spiritual grounds.

Newton Doremus, president, the Land & Loan Co., Inc., Red Bank, N. J.:

"I never found liquor to benefit those who used it, but, to the contrary, a real curse to any community. Seeing the destruction and misery it caused, and better and stronger men than I ruined by it, I have never used it. I believe in majority rule, and can abide by it as any good citizen should."

W. E. Mack, superintendent of service, the Carborundum Co., Niagara Falls, N. Y.:

"I am not in any way breaking the Eighteenth Amendment of the Constitution of the United States."

E. J. Pearson, president, the New York, New Haven & Hartford Railroad Co., New England Steamship Co. and the Hartford & New York Transportation Co., New Haven, Conn.:

"If you should call at my home you would be obliged to go away dry."

J. R. Moore, treasurer, Alexander Manufacturing Co., Forest City, N. C., asserts that he and every member of the corporation in authority, and every man in charge of any of the divisions, including superintendent and overseers, are strict observers of the law and require it of every employee.

F. E. Swift, president, National Bank of Auburn, Auburn, N. Y., believes in the principle that all citizens should be law-abiding, and he follows this principle rigidly.

Eugene L. Fiske, M. D., medical director, Life Extension Institute, Inc., New York, asserts that though some advocates of Prohibition continue to drink, this is an argument for Prohibition, not against it, proving that alcohol is a habit-forming drug.

L. L. Woodruff, professor of protozoology, Yale University, New Haven, Conn., strictly observes the present Prohibition law.

Simon Casady, chairman of the board of the Central State Bank, Des Moines, Iowa:

"I am not in favor of the Prohibition law for others without obeying the law myself."

Wm. Goodell Frost, president emeritus, Berea College, Berea, Ky.:

"The handling of liquor seems to destroy the sense of honor."

Edward Ellery, dean of the faculty, Union College, Schenectady, N. Y., strictly observes the Prohibition laws.

Joseph McFarland, M. D., Sc. D., the School of Medicine, the university of Pennsylvania, Philadelphia, Pa., says that somewhere in his house there is, or was, a pint of champagne bought nearly 30 years ago, for use in sickness at that time, and a four-ounce bottle half full of what is labeled "Whisky—Medicinal," purchased some 20 years ago.

Lewis Jerome Johnson, M. Am. Soc. C. E., professor of civil engineering, the Harvard Engineering School, Harvard University, Cambridge, Mass.:

"I am a 'dry' in principle and practice, but what is now of much more importance is the unescapable truth of the words (of President Coolidge, I believe), 'In a republic the first rule for guidance of the citizen is obedience to law.'"

W. R. Bixler, the Kenton Hardware Company, Kenton, Ohio, writes he never had the desire to indulge in alcoholic drinks.

David D. Lupton, vice-president, David Lupton's Sons Company, Philadelphia, Pa., a teetotaler, says that blasted hopes, ruined bodies and lost souls follow the curse of rum.

D. Seltzer, vice-president and general manager, the Ohio Cultivator Company, Bellevue, Ohio, announces he has no intention of breaking the Volstead law, and maintains that it is the best proposition for the workingman, as well as the

manufacturer, and that he would not like to see the law repealed.

J. Hammond Smith, professor and head of the Department of Civil Engineering, School of Engineering, University of Pittsburgh, Pittsburgh, Pa.:

"I never have, and never will, use intoxicating liquor, and am glad to say that our home is free from all of its degrading influences from within. No home is entirely free from its blight from without."

F. J. Kelly, dean of Administration, University of Minnesota, Minneapolis, Minn.:

"I do not drink."

B. F. Nelson, treasurer, the B. F. Nelson Manufacturing Co., Minneapolis, Minn., does not drink since the Prohibition law banned the use of intoxicating beverages.

C. A. Vinnedge, St. Louis, Mo., has not bought, sold or used liquor since the passage of the Prohibition law.

M. M. McCall, president, the National Bank of Opelika, Opelika, Ala., believes in prohibition for himself as well as for others.

John M. Young, Williamsport, Pa., announces he is a prohibitionist in theory and in practice.

John Haynes Holmes, D. D., the Community Church, New York, believes in absolute fidelity to the Prohibition laws.

Charles Stelzle, Publicity, New York, writes that liquor in any form is detrimental to anyone using it.

K. G. Matheson, president, Drexel Institute, Philadelphia, Pa., observes the laws of our country.

J. W. Fieldhouse, Elkhart, Ill., does not keep or use alcoholic liquors.

H. F. Coppes, Coppes Brothers & Zook, Nappanee, Ind., states that neither he nor the management of his organization uses any alcoholic liquor at all, and that "wet" advocates are still using the same old line of false insinuations and charges against Prohibition.

A. J. Wurts, Pittsburgh, Pa., consistently holds to the plea for obedience to the laws of the land.

D. D. Bowsher, the N. P. Bowsher Co., South Bend, Ind., never uses liquor.

Phillip Sellers, New Haven, Conn., asserts that Prohibition is the law of the land and should be enforced, and that he has never violated it.

Wm. H. Taylor, Associate Justice, Supreme Court of Vermont, Harwick, Vt., has not violated the Prohibition law either in spirit or letter.

Raymond Robins, social worker and economist, Chicago, Ill., points out that a double obligation rests upon all citizens to support law enforcement in the matter of the Eighteenth Amendment by personal abstinence while lawlessness is so widespread.

J. G. Rounds, superintendent, city of Des Moines, Iowa, practices what he preaches on Prohibition.

E. T. Thompson, formerly Attorney General of Nebraska, and Judge, Supreme Court, state of Nebraska, Lincoln, Neb., scrupulously observes and obeys the Prohibition law.

Harold B. Smith, professor and director, Department of Electrical Engineering, Worcester Polytechnic Institute, Worcester, Mass., is in favor of the observance of the Prohibition law and lives up to that observance.

E. C. DeWolfe, advertising specialist, Chicago, Ill., advocates and practices prohibition.

Albert P. Mathews, professor of biochemistry, Cincinnati, Ohio, obeys the law and states that most of his friends and acquaintances do the same.

W. A. Rogers, Bates & Rogers Construction Co., Chicago, Ill., observes Prohibition laws to the letter.

James Risk, treasurer and manager, Dairy Cream Separators,

tor Co., Lebanon, Ind., writes that the official force of his company and he and his family are total abstainers.

George Elliott Howard, the University of Nebraska, Lincoln, through observation is convinced that the vast majority of American men and women practice prohibition, himself included, and will vote, when opportunity offers, for its enforcement.

Arthur Capper, United States Senator from Kansas, Washington, D. C., writes that he never uses liquor in any shape or form, and that he has learned from experience that the man who drinks is neither as efficient nor as reliable as the man who does not use intoxicants.

W. D. Weatherford, president, Southern College of Young Men's Christian Associations, Nashville, Tenn., has never bought, sold or drank a drop of liquor and never expects to.

Andrew M. Soule, president, State College of Agriculture and Mechanic Arts, University of Georgia, Athens, is an absolute 100 per cent prohibitionist.

J. P. Reeves, treasurer, Chicago & Eastern Illinois Railway Co., Chicago, states that the stand he took against alcoholic drinks applies to him as well as to anybody else.

S. R. Van Sant, banker and former Governor of Minnesota, Minneapolis, knows of no one in his list of acquaintances "getting theirs regular," and says that under Prohibition more people are better fed, better clothed, better housed and better employed at better wages than ever before.

Horace A. Moses, president, Strathmore Paper Company, Mittineague, Mass., does not use liquor in any form.

Wm. A. White, M. D., superintendent, Saint Elizabeth's Hospital, Washington, D. C., acknowledges he is not a "preaching prohibitionist," but states he is not a drinking man and that his best judgment dictates that he be on the anti-alcoholic side of the fence.

B. L. Bugg, receiver, Atlanta, Birmingham & Atlantic Railway Co., Atlanta, Ga., who has not violated the Eighteenth Amendment, points out that "the personal practices of an individual here and there do not alter the facts of the benefits of Prohibition. One might be an habitual user of intoxicants and still see and appreciate the benefits of Prohibition based on economic and moral grounds."

B. R. Hieronymus, president, the Illinois National Bank, Springfield, practices his prohibition views, and after long and careful study is convinced that the unrestrained use of intoxicants is detrimental to society, and the Volstead Act is a step in the right direction.

John H. Gray, Department of Economics, Carlton College, Northfield, Minn., refuses to drink law-banned liquor.

Lawrence F. Abbott, contributing editor, The Outlook, Cornwall, N. Y., is in favor of giving the Eighteenth Amendment a careful and sincere trial, and not mere lip service, in order to see whether its social benefits offset whatever personal deprivation may result from it.

John Fahnlne, Sharon, Pa., from observation learned not to touch liquor, and asks:

"Has liquor not cost humanity the lives, misery and starvation of a hundred million men, women and children?"

George F. Bovard, president emeritus, University of Southern California, Los Angeles, Cal., strictly obeys the laws of our country.

Rockwell D. Hunt, dean of the Graduate School and professor of economics, University of Southern California, Los Angeles, Cal., is a strict prohibitionist who affirms his feeling of abhorrence for those who outwardly proclaim their patriotism and reverence for law while inwardly they are flagrant violators of law and breeders of anarchy.

J. N. Hart, dean, University of Maine, Orono, Maine, an

abstainer from youth, states the very few in his circle of acquaintances who violate the Prohibition laws to his knowledge never favored Prohibition.

Frank L. McVey, president, University of Kentucky, Lexington, does not have, serve or use liquor, and is endeavoring to maintain the law at the university.

E. L. Bogart, University of Illinois, Urbana, states he has never purchased liquor within the confines of the jurisdiction of the United States.

E. N. Foss, former Governor of Massachusetts, and president of the B. F. Sturtevant Company, Boston:

"I can say for myself and for all with whom I am acquainted who are espousing the cause of National Prohibition, and working for the enforcement of law and order throughout the land, are themselves living up to their professions."

E. O. Sutton, Knox Motors Associates, Springfield, Mass., who observes the law, believes the way to increase temperance and abstinence is to increase the number of those who are convinced that it is the wisest and most agreeable course.

Charles E. Lawrence, general superintendent, Menominee Range Iron Mines, Caspian, Mich., a mining operator of 41 years' experience, who has come in contact with all grades and kinds of liquor drinking, sees no good in it from any angle.

W. A. Evans, M. D., Health Department, Chicago Tribune, Chicago:

"I practice what I preach."

James D. Barnett, University of Oregon, Eugene, Ore., still favors the policy of drastic Prohibition, and says the only hope lies in continuous pressure for the strict enforcement of the law.

W. G. Beach, Stanford University, Stanford University, Cal., does not regard highly the man who advocates a law which he does not himself obey.

In a 32-page pamphlet, the size of these pages, under the title "Slanders Against Prohibitionists Refuted," we are publishing in full the letters from which these brief extracts are taken, and the introductory editorial thereto, together with many other letters which came in reply to our recent question as to whether these advocates of Prohibition were using intoxicating liquors or not.

The emphatic statements of the contributors should forever set at rest the cry of "Hypocrite" raised for so long by the "wets" against those who have favored Prohibition, and the letters published offer by far the strongest testimony yet presented of leading educational, professional and business men of the country to the cause of Prohibition, dealing as they do with such personal questions.

The MANUFACTURERS RECORD urges everyone interested in the cause of Prohibition and in upholding the Constitution of the United States to distribute as many of these pamphlets as possible.

The price of the pamphlet is 25 cents a copy, bulk orders of 100 to 1000 20 cents a copy, and for 1000 or over 15 cents a copy.



### To Receive Bids on \$450,000 Store.

Dallas, Texas.—Plans are being prepared and bids will soon be received for a \$450,000 store building to be erected here by the Wholesale Merchant Co. The structure will be 95 by 125 feet, eight stories and basement, of reinforced concrete, with cement floors and tar and gravel roof. Lang & Witchell of this city are the architects.

### May Vote on \$600,000 of Bonds.

Ada, Okla.—Petitions are being considered by the Pontotoc County Commissioners with a view to calling an election on two bond issues aggregating \$600,000 for the construction of a courthouse and jail and for building good roads. The courthouse and jail proposition contemplates an issue of \$175,000, while the proposed roads issue is for \$425,000. In case the road bonds are voted, it is expected that they will be matched by state and Federal-aid funds.

### Hercules High Explosives Plant in Operation in Alabama.

Bessemer, Ala.—The big high-explosives plant of the Hercules Powder Co. at McAdory on the Louisville & Nashville Railroad, about five miles from Bessemer and about 17 miles from Birmingham, is now complete and operating.

The plant has a manufacturing capacity in excess of 1,000,000 pounds of high explosives monthly; all kinds will be manufactured, including permissible powders for coal mining, gelatine, extra and straight nitroglycerine dynamites for mining, construction, quarrying, agricultural and other purposes. Users of explosives in Alabama, Louisiana, Florida, Mississippi, Georgia and the southern portions of Tennessee and South Carolina will be supplied from this plant.

The Hercules Company now has in the South three naval stores plants, two explosives plants, magazines and other properties representing large expenditures of capital, and each year is paying to Southern employees over \$1,000,000. In announcing completion of the plant, the company stated: "We feel that the increased investment represented by our Bessemer plant is justified by the South's promise of even more rapid development. And we propose that our own development shall at all times keep pace with that of the Southern industries we serve."

This plant was described in detail in the MANUFACTURERS RECORD of February 12, 1925.

### High Quality of Texas Clays.

Dallas Chamber of Commerce.

Dallas, Texas, October 26.

#### Editor Manufacturers Record:

In connection with the item on page 56 of the October 22 issue of the MANUFACTURERS RECORD, wherein attention is called to your prediction that the English brokers and importers would undertake to disparage Southern clays, we wish to bring to your attention the fact that the kaolin deposits in Real county, near San Antonio, have been pronounced, after practical tests, as better adapted to the manufacture of pottery, paper and paints than any other known kaolin.

In England the foreign matter in the kaolin when first dug ranges from 12 per cent to 50 per cent, all of which must be removed by washing. The Limoges clay used by the Havillands contains upward of 2 per cent of oxide of iron. These facts demonstrate the ease and economy with which Texas kaolin can be mined, since it averages 99 per cent pure kaolin.

At present these deposits of kaolin are not being worked at all. However, many carloads have been ground and shipped just as the material came out of the earth; the kaolin was manufactured into the finished product and placed on sale in Chicago, New York, Boston and other places by the potters. Its merchantability was well demonstrated, retailers having reported sales in the ratio of three to one of the Texas ware as compared with foreign wares; this notwithstanding that the material was not properly prepared, having been used in the manufactured body, unwashed, just as it came out of the mine. All English, French and German clays are thoroughly washed to remove any deleterious matter before they are placed on sale.

Some progress had been made in the production and sale of the Texas kaolin when litigation was started concerning the boundaries of the land, whereupon it was necessary to discontinue operations. The litigation extended over a long period of years, during which time it was not possible to market the kaolin. This boundary dispute has now been settled, but thus far no moves have been made to develop the practically inexhaustible kaolin deposits of Texas. However, the argument that domestic clays are unsuitable and inferior to the English clays is fallacious, at least with respect to the Texas kaolin.

E. H. Brown, Secretary,  
New Industries Department.



NEW ALABAMA PLANT AT BESSEMER OF HERCULES POWDER COMPANY.

# Muscle Shoals and How to Utilize It.

[Thomas W. Martin, president of the Alabama Power Company, in reply to an inquiry from John C. McKenzie, chairman of the Muscle Shoals Commission appointed by President Coolidge, under date of October 28, submitted the following letter to Mr. McKenzie. It will be remembered that the Alabama Power Company and other hydro-electric companies in the South united last year in a proposition to the Government which seemed to us to be far and away ahead of any other proposition that had been submitted for the utilization of Muscle Shoals. Touching on the proposition then made, and discussing the whole situation, Mr. Martin has now submitted to the Muscle Shoals Commission the following presentation of this situation. When Southern power companies united in an offer last year to the Government, some effort was made to claim that this offer was merely made for the purpose of defeating the Ford proposition. That was in every respect, we think, untrue. The Alabama Power Company now comes back with a proposition and states that it is prepared to make an offer for the utilization of this power whenever the Commission is empowered to negotiate contracts.—Editor Manufacturers Record.]

Alabama Power Company.

Birmingham, Ala., October 27.

Muscle Shoals Inquiry,

Hon. John C. McKenzie, Chairman,  
Washington, D. C.

Gentlemen:

Responding to your letter of the 8th inst., in which we are invited to submit in writing, for consideration of the Muscle Shoals Inquiry, a general outline of a proposition we might have for dealing with the power and fertilizer problems at Muscle Shoals, we desire to amplify our letter of May 18, in reply to one from you, when we expressed a willingness to discuss the matter in detail with your Commission if desired.

1. A definite plan for private operation of the plants at Muscle Shoals to safeguard national defense, for the production of fertilizer and other useful products and for disposition of surplus power cannot be submitted until it is known what conditions and limitations are to be incorporated in contracts with private parties. If your Commission were empowered to negotiate contracts, we are confident satisfactory agreements could be made to begin operation without delay.

2. The suggestions of a general plan, outlined below, are submitted on the assumption that Congress will empower some one to negotiate contracts with responsible parties for private operation on the best terms obtainable, which contracts will have for their general purpose the following:

(a) Maintenance of Nitrate Plant No. 2 for immediate operation to present capacity for the manufacture of explosives or other munitions of war whenever the national welfare demands.

(b) Operation of the nitrate plants for the production of fertilizer in commercial quantities in a manner that will benefit agriculture.

(c) Operation of the power plants in a manner to insure the greatest conservation of natural resources, the power therefrom to be used for the operation of the nitrate plants for national defense, for the manufacture of fertilizer and other useful products necessary in war and in peace, and for distribution of the surplus power under public regulation, with such reservations as will allow its gradual withdrawal and application to fertilizer production.

(d) Reasonable money return to the Government for use of its facilities utilized in private industry.

3. We believe the above objects can be secured at Muscle Shoals in a normal business way through private operation without subsidy or further expense to the United States. Operation of the Muscle Shoals power facilities in connection with existing and future interconnected systems in the Southeast, which includes hydro-electric and steam stations so situated as to supplement Muscle Shoals power, is necessary in the interest of conservation. The limited power resources of the region must, in the public interest, be conserved in every way possible, and by so operating them a larger volume of power can be produced at less cost than can be obtained by their separate operation. Indeed, a failure to co-ordinate

the plants with other systems would result in a waste of a large part of this natural resource. We believe through such co-ordination that it will be possible for the Government to provide power for a lessee of Nitrate Plant No. 2 on terms which will justify its operation for the production of fertilizer, fertilizer materials and other useful products as a commercial enterprise without aid or assistance from the United States other than the right to use the plant for a nominal rental. A similar statement can be made as to Nitrate Plant No. 1.

4. We have, from time to time, conferred with parties engaged in the production of fertilizer and fertilizer ingredients, and also with others who have the right to use chemical processes adaptable to these plants for fertilizer production, and have investigated the possibilities for the commercial development of a nitrogen-fixation industry in that territory. In our opinion, with ample power available, in the manner pointed out above, and the right to use these plants without undue restrictions of an uneconomic character, Nitrate Plant No. 2 can be placed substantially in immediate operation as a commercial enterprise producing fertilizer, fertilizer materials and other useful products necessary in war and peace. Nitrate Plant No. 1 can likewise be operated after considerable alterations. Under these conditions private capital will not hesitate to go forward in the prompt development of a nitrogen industry at Muscle Shoals. As a public-utility company engaged in the generation and distribution of power in that section, interested in promoting the development of the South, we are prepared to assist, to co-operate and to encourage such development.

5. Under date of January 15, 1924, this company, together with the Tennessee Electric Power Company and the Memphis Power & Light Co., submitted proposals for the operation of the hydro-electric and steam plants at Muscle Shoals on a basis which would return the Government substantially 4 per cent on its investment in the hydro-electric plant during the fifty-year period (House Document 173, Sixty-eighth Congress, first session); and also, under date of January 24, 1924, with other associates interested in chemical methods and processes, we submitted a proposal for the manufacture of nitrogen and fertilizer at Muscle Shoals (House Document 158, Sixty-eighth Congress, first session). In event legislation is enacted that will authorize lease contracts in substantial conformity with the terms of these offers, we would be prepared to go forward with associates who are experienced in the production of fertilizer and fertilizer ingredients and organize a corporation amply financed to carry out the terms of these offers, or co-operate with others whose proposal might be more acceptable for the development of a nitrogen-fixation industry at Muscle Shoals.

6. We believe the legislation to be enacted by Congress should authorize (1) lease contracts for operation of the properties at Muscle Shoals, for a period not to exceed fifty years, either as a whole or in separate parts, whichever is found to be most advantageous to carry out the purposes of the Act. (2) Said lease contracts should provide, on such terms as Congress may determine, for maintenance of Nitrate



Plant No. 2 for purposes of national defense and operation of Nitrate Plant No. 1 and/or Nitrate Plant No. 2, at nominal rental, for the production of fertilizer and other useful products necessary in war and in peace. (3) Subject to power reserved for operation of the nitrate plants as indicated above, the power plants should be leased on the best terms obtainable, on a basis of not less than 4 per cent per annum on the cost of Dam No. 2 and its power-generating facilities, the power plant lease to be subject to recall or recapture at any time under the terms of the Federal Water-Power Act.

7. During the period of development of fertilizer production, and doubtless for some time after the manufacture of fertilizer is begun on a commercial scale, there will be much surplus power from the Government power plants which can be absorbed in public service for domestic and industrial use by consumers through existing interconnected transmission systems, and through other transmission lines now under construction or proposed to be constructed in Mississippi, west Tennessee, portions of Louisiana and North Florida. This arrangement would make possible commercial utilization of much secondary power at Dam No. 2, insure a maximum use of its power facilities at the most economical cost of production for all purposes and permit the interchange of power so that an excess supply in one section would immediately become available for use at other points throughout the interconnected system, and would enable the Government to realize the best return for power not required for national defense and fertilizer production. As indicated above, the power companies of the Southeastern states are prepared to materially assist in co-ordinating the power facilities at Muscle Shoals with power facilities elsewhere in order to provide the maximum output of power from the facilities of the Government for national defense, for the production of fertilizer or other useful products herein mentioned and distribution of power. The advantages to national defense of an interconnected power system in the South, co-ordinated with the Government power plants at Muscle Shoals, is discussed at some length as a result of a study made under direction of the chief of engineers and submitted in a report entitled "Power Situation During the War," pp. 264-265.

8. The construction of Dam No. 3 is an important part of the Muscle Shoals problem. If the demand for navigation should justify its early construction by the Government, we believe that the market demand for power in the adjacent region of Mississippi, Tennessee and Alabama will insure a fair return on the cost attributable to power development. If, however, construction of Dam No. 3 is not undertaken by the Government, we are convinced that the power market in the territory south and west of the Muscle Shoals section will make necessary its early construction by private capital and without expense to the Government except for the cost attributable to navigation and navigation facilities.

9. Industrial development in the territory adjacent to Muscle Shoals and the Tennessee River Valley demands prompt development of additional power resources. It is the duty of power companies engaged in public service to anticipate and supply these needs. The power companies in this region are in position to finance and develop power to meet the market demand for whatever needs the public may require without financial assistance from the Government.

10. At the present time, and for several months preceding, the steam power plant at Muscle Shoals and a portion of the hydro-electric plant at Wilson Dam have been operated to capacity under a temporary lease agreement to supply emergency power demands in a very large area of the South. Certain portions of the South adjacent to Muscle Shoals are largely dependent on that source for power, at least for several years. Local industrial development hesitates to go forward on a permanent program in the Muscle Shoals sec-

tion because of the uncertainty attending the use of power, whether entirely for national defense and fertilizer or, in part, for industrial and public-utility use.

The public interest will be greatly served, therefore, if a plan for operation of the Muscle Shoals properties is determined at an early date.

Yours very truly,

THOMAS W. MARTIN,  
President, Alabama Power Company.

### \$800,000 Hotel for Lakeland.

The new \$800,000 hotel under construction at Lakeland, Fla., is expected to be ready for occupancy by January 1, 1926. The structure will be eight stories and will contain 144 rooms. Framework is of reinforced concrete, with stucco exterior, hollow-tile walls, colored-tile roof, roof garden and other facilities. It will be served by three elevators. Provi-



NEW HOTEL READY IN JANUARY.

sion has been made for the accommodation of 10 shops in the basement, which will also provide space for kitchens, servants' quarters, servants' dining room, machinery and equipment rooms, trunk room and barber shop.

The first floor will contain a lobby, 35 by 110 feet; ballroom; circular glassed sun room, 30 feet in diameter; dining room 33 by 50 feet, and two private dining rooms.

The hotel is owned by the Ridge Holding Co., Henry Conrad, president, and plans and specifications were prepared by Olin H. Rounds of St. Petersburg. Billman & Purdy of St. Petersburg are structural engineers, and the Lovering-Longbotham Co. of St. Paul, Minn., and St. Petersburg is general contractor.

### Considering \$5,000,000 Sewer System.

Plans are being considered by the city of West Palm Beach, Fla., for a sewer and sewage-disposal system estimated to cost \$5,000,000. Discussing the proposed installation, Fuller & McClintock, engineers, of Toledo, Ohio, advise the MANUFACTURERS RECORD they have recently submitted a report to the city which recommends a system of intercepting sewers, with sewage pumping stations and force mains, as well as purification works, of the activated sludge type, to provide for a population of 100,000, with an average daily sewage flow of 24,000,000 gallons.

The Board of Education of Cape Girardeau School District, Cape Girardeau, Mo., has sold a \$300,000 bond issue to Kauffman, Smith & Co., St. Louis, at par and a premium of \$375, funds to be used for building a new school and additions to two existing structures.

# We Must Be Safeguarded Against Dangers Ahead.

By GEORGE GARNER.

Something like 3000 years ago probably the most unpopular person on this planet was a young woman named Cassandra, daughter of King Priam of Troy. The reason was that Cassandra was addicted to speaking unpleasant truths and voicing prophesies unpalatable to the people. Troy, she said, for instance, was doomed to destruction unless the Trojans would prepare to avert its fall; and, as she knew they would not prepare, she positively predicted the end. Either the pacifists were in the majority in that day, or a preparedness majority was inert; at all events, Troy fell, and the patriotic pleader for preparedness was carried into captivity with the Trojan pacifists. Which, of course, was appropriate retribution for a person inclined to speak unpleasant truths or to plead for preparedness against invasion of her beloved land.

History ever repeats itself. So, in the United States today he who preaches preparedness is damned as a croaking Raven on Uncle Sam's door. As in Troy, either the pacifists are in the majority, or a preparedness majority is stupefied by the drug of indifference. So, like Cassandra of old, I propose to speak the truth, and coincidentally pray for escape from the fate which befell her in the end.

In discussing with me the future of the United States, a member of the National House of Representatives remarked: "I am glad I was born when I was, instead of fifty years later"—will he arise on the floor and repeat that remark and give Congress and the nation his reasons? He will not—indeed, I will wager a red apple that he will vote for reduction in the land and sea forces and will cheer for disarmament. As a member of the House for a decade and elected to the incoming Congress, also, he knows pretty well where his votes come from and he's not going to let his personal views interfere with his political profit. Which reminds one of an interesting occurrence on the floor of the House only a few years ago.

The late Representative A. P. Gardner of Massachusetts had just made a speech on a bill, and another member arose and remarked: "It is all very well for the gentleman from Massachusetts to talk that way—he carries his district in his vest pocket."

"Thank God, I do carry my district in my vest pocket—and I can vote as my conscience and my judgment dictate," retorted Gardner.

Thus, the independent Gardner, in the teeth of pleas for "neutrality in thought," became the actual originator of the Preparedness movement, while his critics and many statesmen, fettered by the chains of self-interest, remained "neutral in thought" and "resolutely declined to prepare" for the inevitable war, and so contributed directly to the slaughter of many thousands of American soldiers when we got into the war after the election of 1916.

The American people believe, or profess to believe, that they are sitting on top of the world, elevated high above danger of attack by any other nation or combination of nations on earth.

The actual fact is that Japan and Germany, individually and in conjunction, yearn to lay hands on the wealth of the United States, and perhaps even on American territory, as in the insular possessions, when they consider themselves properly prepared. Mexico will be used as one base of attack and preparations are well under way in the country for "Der Tag," while Russia also is expected to take part in the fray and already is, doing much within the United States by advancing the cause of communism and encouraging the pacifist sentiment.

That is the actual situation, despite all denials by plotting

nations and all disdainful sniffs by pacifists of every stripe in the United States.

The greatest danger to the United States at this moment is of twofold nature—the activity of the pacifists and the passivity of the patriotic element. These features may be discussed in sequence.

The pacifist element may be divided into five groups: Sincere pacifists, professional pacifists, politician pacifists, organized labor and Communists.

Without question, the sincere, honest pacifists form the smallest group in the composite pacifist throng. In the main, this sincere group is composed of high-minded, patriotic, intelligent and really cultured men and women, reinforced by many church people of the clergy and laity and by a tremendous number of "dupes," who are deluded by the enemies of the nation and are used as pawns in the war game in progress. The sincere pacifist is honestly unable to imagine another war; he regards the recent world conflict as a "war to end wars," and is convinced that this end was achieved. He, and especially she, swallows the false protestations of friendship made by a nation which described a solemn treaty—an international obligation sacred in all other eyes—merely as "a scrap of paper," and tore it up, and violated the pledges and murdered millions of peaceful people and ravished helpless women and tortured innocent children. They rely on the "friendship" of a nation which less than a year ago gave official notice to our Government that "grave consequences" would follow the enactment of an American law which would bar those "friendly" nationals from our shores. They close their eyes to the campaign of communism in the United States which Government officials, from highest to lowest, encourage by permitting flagrant violation of the laws against treason and anarchy. Eyes have they and they see not; ears have they and they hear not—neither will they be persuaded though the martyrs of the World War should arise from the grave to warn them.

It is difficult to speak with moderation of the "dupes." To quote the late R. M. Whitney, an unquestioned authority on communism in America:

"One of the best illustrations of today how 'dupes' are being used are the many well-meaning, sincere and loyal women who have been induced to take part in some so-called 'peace' movement. These movements all originated in the Communist International. The object of all is to destroy national loyalty and patriotism, to take from this nation its protective forces, or at least greatly weaken these protective forces, so that when the day of the 'revolution,' about which all Communists prate, arrives the people will not be able to defend themselves. The 'dupes' are many and easy."

Read and ponder an oath of the Women's International League for Peace and Freedom:

"In case our country is at war, I will not join nor work for the Red Cross, nor make hospital supplies; I will not urge food conservation; I will not buy Liberty bonds or any other similar war loans; I will not make munitions nor take a man's place in order to enable him to go to war."

To characterize merely as "dupes" any Americans who would subscribe to such an oath may seem the superlative of moderation; yet, actually, there are a few American women so sincere in their pacifism that they will go to this extreme without realization of the fact that they are helping to undermine the safety of the nation for which, undoubtedly, some would willingly give their very lives.

Then, too, there is the Women's Peace Union of the Western Hemisphere, of which Whitney said that it carried the following membership affirmation on its letterhead:

"I affirm it is my intention never to aid in or sanction war,



offensive or defensive, international or civil, in any way, whether by making or handling munitions, subscribing to war loans, using my labor for the purpose of setting others free for war service, helping by money or work any relief organization which supports or condones war."

Such pacifist organizations are formed by the Communists of the world in their avowed movement to overthrow the Government of the United States by violence and bloodshed, and the sincere American pacifists in joining are thus made active promoters of a prospective civil war, the cloud of which, larger than a man's hand, already hovers over the national horizon.

For persons who turn to pacifism on religious and "Christian" grounds there are such organizations as the Federal Council of the Churches of Christ in America and its subsidiary organizations, interlinked with the American Civil Liberties Union through members and officials; for instance, says Whitney:

"The chairman of the American Civil Liberties Union is Rev. Harry F. Ward, \* \* \* formerly connected with the Boston School of Theology, a teacher of Christian ethics at Union Theological Seminary and a leading factor in the Interchurch World Movement and the Federated Council of the Churches of Christ in America. His sympathy and co-operation with Socialists, I. W. W., radical and other anti-American movements have been notable. He was a pacifist during the war, and practically all his associates in the organization have records as pacifists and defeatists in those troublesome days, some of whom were imprisoned for their refusal to fight when the United States was at war or for endeavoring to bring about the defeat of this country by actively aiding the enemy."

"The choice which America must squarely face is Mars or Christ," says the Commission on International Justice and Good-Will of the Federal Council of the Churches, in suggesting "America's Choice" as the subject for Armistice Week discussion. This unpardonably and illogically false assertion is typical of the methods employed by non-American pacifist organizations in their emotional appeals to the sincere pacifists. The churches are to be enlisted in this emotional movement on Armistice Sunday, November 8, and, literally, hundreds of the clergy and laity will "fall for" this un-American propaganda because, although false on its face, it is made in appealing fashion.

"Every effective device should be used for making the strongest possible appeal to the minds and hearts of the people on behalf of world peace," says this pacifist organization. The Federal Council, through this ultra-pacifist commission, "is, accordingly, preparing material for use in the churches on Armistice Sunday and during Armistice Week." That is to say, scores, even hundreds, of churches, erected to the service of God and the cultivation and spread of Christianity, are to be debased and prostituted to the propaganda of a national pacifist element which encourages the world groups that openly and avowedly propose to destroy the Christian religion, as in Russia, where it is a crime to teach children about God.

These pacifist organizations do not propose to assure world peace; they are working, directly and indirectly, for a world war in comparison with which the recent World War will, literally, seem a humane and childish game. Into this the United States inevitably must be drawn, and it may not find other nations as willing to fight for its undefeated existence as they were a few years ago.

In short, the sincere pacifists of every kind are merely tools in the hands of potential national enemies abroad and of active Communists at home, who through them seek to disarm the United States and render it helpless in the days when international and civil war break over this care-free land.

At the head of the professional pacifists are the demagogues, among whom may be numbered many influential newspapers of the country. The demagogue selects or devises some policy

which he believes will appeal to the people, and plays on it for his own selfish aggrandizement, financial or of some other selfish nature. Whether the policy be patriotic or treasonable, sound or unsound, makes no difference to the demagogue. He preaches it from the rostrum, from the pulpit, from the soap box and through the columns of complaisant newspapers. At the close of the most stupendous war of all earthly history he seized upon pacifism as of tremendous appeal to the people, and he has preached it from the original Armistice Day.

In olden days the American flag floated at the "masthead" of the leading newspapers; today, the Dollar Sign has that place of honor at the head of many editorial and news columns. It is so much easier to give the people what the people think they want than to give them what they should have for their own good. It is so much more profitable to prate pacifism to a war-weary world than to preach preparedness against wars in the future. Preparedness, in the American interpretation of the word, is not preparedness "for" war, but "against" war; it is the ounce of prevention, worth tons of cure. So the policy of many newspapers is guided by the business-office receipts, rather than by any conscience or knowledge or patriotism in the editorial sanctum. The publicity and propaganda of such organizations as the American Civil Liberties Union, organized labor and the Federal Council of the Churches are given columns of free space; the words of information and warning of American patriots are cast into the waste basket or submerged among the advertisements.

As high privates in the rear rank of the professional pacifists are the so-called executive secretaries and similar officials of many organizations, either openly or surreptitiously pacifistic in their activities. Such men, like the demagogues, select a subject of popular appeal and proceed to enlist the interest and support—above all, the financial support—of persons of repute and wealth. Some of the "dupes" enlist in sincere belief that they are helping a worthy cause and in honest desire to be of service to their country; others succumb to the temptation of publicity, to "get their names in the papers" and to preside at occasional gatherings given rather as publicity stunts than with honest intent. The one interest of such officials is to assure salaries for their jobs and to cling to those jobs like grim death.

Then there are the "adepts," in contrast with the "dupes," and of the "adepts" Whitney explains that, "still employing the original system of deception, falsehood, secrecy and intrigue, they go into all groups—labor, students, church members, farmers, women and others—with an appealing slogan, and through this method secure additional 'dupes,' who are inducted into some organization directed by the inner circle of the Communist International, where these 'dupes' are placed actively at work furthering some idea which, if put into practice, would contribute to the general purposes of the Communists as expressed in the six purposes of Illuminism." These six purposes are:

- 1—The abolition of government;
- 2—The abolition of patriotism;
- 3—The abolition of private property right;
- 4—The abolition of inheritance;
- 5—The abolition of religion;
- 6—The abolition of family relations.

Next in the pacifist category comes organized labor, to which very many of the newspapers are especially subservient. Organized labor works—and works with amazing results—through noise and intimidation. In a minority of almost 1 to 25 in the national population, it bulldozes Congress and even has exerted evil influence much higher up in the Government. It is especially hostile to the National Guard, which more than once, in sundry states, has been called to arms to defend innocent people and industries against its violence. Pacifism means national disarmament;

and national disarmament means lack of protection against murder and arson and other phases of a great strike.

Finally, in the category of professional pacifists are the radicals of the land, all of whom, under their various names, may be bunched as Communists. The unsleeping activities of this element have been so thoroughly described in the *MANUFACTURERS RECORD* from time to time that they will not be repeated here. But it must be said that probably the most dangerous feature in this connection is the wicked toleration of their treasonable activities by Federal, state and municipal authorities sworn to protect the Government of the United States and the governments and people of each lesser political unit also. The Postoffice Department and the Department of Justice permit, unchecked, the publication and circulation of papers, pamphlets and other literature openly inciting malcontents to rise up and overthrow the Government by force and bloodshed. Speakers are permitted to make revolutionary harangues in public halls and on street corners, denouncing the Government of the United States, urging its overthrow and preaching murder and arson as the weapons of Communism. The encouragement, by toleration, of this anarchistic movement verges on open treason to the United States through indirect participation.

Such are the tribes of the composite race of pacifists in the United States—elements which for individual ends would disarm the nation and leave it, helpless, as prey to foreign invaders and to foes at home.

Time was when this tremendous national danger was largely counterbalanced by the activities of patriotic societies organized to protect the nation from foes outside and within its borders. Now, these societies seem supine. Once militant and aggressive and carrying the fight for Americanism right into the pacifists' and Communists' strongholds, they now sit silent and inert. The leaders and members appear to think their work ended with the war; the fact is that now the danger to national security is just as great as in 1917. Intermittently, these organizations give "dinners," with prominent speakers; periodically, they produce patriotic "literature"; occasionally, they do something worth while; but, on the whole, they are somnolent under the soporific of self-satisfied ease.

All of which will be condemned by the sincere pacifists and the ease-loving patriots, but all of which is absolutely true none the less.

### **Power Company Capitalized at \$15,000,000— Consolidates Virginia Properties—Trans- mission Line Opened.**

Richmond, Va.—Recently acquired by new interests, the Virginia Railway & Power Co. of this city, in consolidation with the Spotsylvania Power Co., becomes the Virginia Electric & Power Co., with an authorized maximum capital stock of \$15,000,000, according to an amended charter which has been approved by the State Corporation Commission. Luke C. Bradley is named as president and A. H. Hermann as secretary of the new company.

A transmission line from Roanoke Rapids, N. C., through southern Virginia to connect at Suffolk with the company's Richmond-Norfolk line has just been opened. The Virginia Railway & Power Co. last year purchased practically all the stock of the Roanoke Rapids Power Co. at a cost of approximately \$1,000,000, and recently has acquired electric plants operated by the communities of Weldon, N. C., and Holland, Va. Negotiations are now pending, it is said, for the purchase of plants at Franklin, Newsome, Boykins and Seaboard. It is stated that the new transmission line was constructed at a cost of approximately \$800,000, including the right-of-way.

### **BIG SHIP CONTRACTS AT NEWPORT NEWS.**

#### **22,000-Ton Passenger Liner to Be Built—Two \$2,500,000 Ships for Clyde Line in Addition to Vessel Being Completed.**

Newport News, Va.—One of the largest and most important shipbuilding programs ever undertaken by the Newport News Shipbuilding & Dry Dock Co. is in progress at the company's plant here. In addition to a number of ships under construction, the company has received contract for the construction of a 22,000-ton passenger liner for the International Mercantile Marine Co., which will be, it is said, the largest liner ever built in the United States. The vessel will be the first of three to be placed in the intercoastal service under the house flag of the Panama-Pacific Line, and is estimated to cost \$7,000,000. It will be luxurious in its appointments. It will be equipped with the turbo-electric drive, the power to be generated by oil-fired boilers, which furnish steam to turbines that in turn will drive electric generators whose energy will drive twin propellers.

The new vessel will be different in general design and in detail of plan and construction from any other ship now in American coastal or intercoastal trade, being based on that of the steamers *Minnewaska* and *Minnetonka*, Atlantic Transport liners plying between New York and London. Its construction is said to be the beginning of a program which the Panama-Pacific Line has mapped out for largely increasing tonnage in its New York-California trade. The vessel will not only have accommodations for a large number of passengers, but will be fitted with refrigerators of large capacity for carrying fresh fruits, this to be an important unit in ventilated holds with a total capacity of 7800 tons.

Launching a few days ago the new steamer *Mohawk* for the Clyde Steamship Co. of New York, it is announced that this company has awarded contracts to the Newport News Shipbuilding & Dry Dock Co. for the construction of two additional ships, to cost approximately \$2,500,000 each, for service on the New York-Miami route. Washington dispatches state that a loan of \$2,500,000 has been made by the United States Shipping Board to the Clyde Steamship Co. for use in the construction of these steamers, which will be over 400 feet long and have passenger accommodations for more than 400 passengers. Plans for the ships are said to have been approved by both the Army and Navy departments with a view to their possible use in the Naval Reserve.

The *Mohawk* is of full steel construction with double bottom. Her length is 402 feet, beam of 54 feet and draft of 20 feet, with a passenger capacity of 446 and freight capacity of 5300 tons. Her steaming radius will be 7000 miles and her speed from 16 to 18 knots per hour. She will be equipped with oil-burning boilers connected with turbine engines of 4000 shaft horsepower. Metallic lifeboats will be provided, to include motor pilot-boat and Wellin mechanical davits. Other equipment will include automatic fire-detecting apparatus, with steam, salt-water and "Foamite" extinguishing systems, and condensing, evaporating, distilling and refrigerating plants. Interior finishings are of white and red mahogany and polished oak. Ventilation is provided by mechanical devices with individual control in each inside stateroom and public sections of the ship, as well as throughout the cargo deck, while each room is equipped with fans and berth lights. A vacuum-cleaning system is a part of the electric equipment, in addition to elaborate lighting and cooking facilities.



# The True Story of the Ford Rubber Plantation in Southwest Florida.

By L. M. DRAKE, Daytona, Fla.

More than 30 years ago a bachelor son and his invalid mother journeyed from one of the Great Lakes states to a warmer clime that the mother's life might be prolonged and perhaps health restored. This search led inland some 35 miles east of Fort Myers along the Caloosahatchee River. Near the site of old Fort Thompson this hardy pioneer, E. E. Goodno, settled, buying considerable acreage as time went on. When Mr. Goodno arrived in that section his total funds were less than \$1500. In those days the range cattle was a large industry extending over thousands of square miles of timber and swamp land. Mr. Goodno, coming from a farming state where cattle were selected and bred for certain qualities, early saw the need of improving the stock of Florida range cattle. Starting with small herds and experimenting with different crossings, even to the Brahman, he increased in the subsequent years his number of cattle to thousands.

There is no more interesting example of energy, pluck and manly fight to meet difficulties in this new wilderness than that of this hardy son from Wisconsin. His ranch grew to more than 8000 acres. He dug canals, constructed roads, built a hotel for winter visitors who journeyed inland by the crooked Caloosahatchee which flows through his ranch, built a little light and ice plant, fenced much of the land out of water, and 14 years ago founded the little town of Labelle on the site of one of his cattle pastures. In Labelle is the little old-fashioned wooden hotel which was built long ago, where, as I sat at luncheon a few weeks ago, I saw through



MR. GOODNO STANDING BEHIND THE ONLY PLANT TO SURVIVE THE FLOODS.

the open windows the native children bathing in the concrete pool built there years before. This pool was fed by a fine four-inch artesian well.

Some years prior to the World War cattle were in the ascendancy. Just before the United States entered the war Mr. Goodno was offered \$1,000,000 for his holdings. This patriotic man declined the offer so that he might furnish his cattle direct to the Government. At the close of the war cattle rapidly declined in value and have not recovered. Some five years ago south-range cattle were around \$30 per head; last year the prices averaged \$8 to \$9. The steady decline of cattle and general stagnation in south Florida brought another struggle to the founder of Labelle. For two years longer the struggle continued. The ranch was sold to Henry Ford for \$350,000, a sum which is generally known in that section and about which there is no secret. So Mr. Ford, a friend to E. E. Goodno, became the owner of the old

ranch, with its little antiquated engine and dynamo out in the woods behind the Fort Thompson Hotel, the Goodno farm home, the little village of Labelle property two miles away, to which run two little weather-beaten wires to supply the light for the village.

The writer, who had spent several months in southwestern Florida in industrial research, met the men who had charge



THE COMPLETE NURSERY—OLD HOTEL IN THE DISTANCE.

of much of the rubber-plant research work done on the Goodno ranch, in Fort Myers, and visited the place as guest of the research department and to secure for them the needed photographs for the Detroit department.

There is no rubber plantation at Labelle. There never has been. Two different times the plants have been drowned by high water. Only one plant had survived into the second season to blossom. It has been a small nursery of shrubs a few rows wide and about 400 feet long. There are no rubber trees. The rubber plant experimented with is a shrub, *Cryptostegia grandiflora*, and is a sort of climber. In India and Madagascar this plant years ago was cultivated for its rubber latex. The plants set out were mostly from cuttings and were obtained from Reasoner Brothers' Nurseries at Oneco, Fla. The plant will also grow from seeds, as a few were growing from this source. The last planting was but a few months old—a splendid healthy growth from a few inches of cutting to waist high, as the illustrations show. This plant is a quick grower and a good source of latex. In Fort Myers, just across from the Royal Palm Hotel, are some well-developed plants some 7 or 8 feet high and densely grown. Just a touch on leaf or twig, even a pin prick in the tiniest place on a leaf tip, and the milky juice quickly flows.

When Henry Ford took over the cattle ranch his very active mind searched for an industrial use of its rich soil. It has been a problem of long study as to the possibilities of rubber other than from English and Belgian sources. Hence the experiments. In a letter from Mr. Smith of the Ford Motor Corporation research department at Detroit to me some months ago the entire project was alluded to as experiments to continue over a series of years, with reference to climate and adaptability.

We drove some 16 miles along the Clewiston road across the marshes. An endless sea of grass and water. Whole sections of the eastern end of the ranch are marsh sections. The roads were reclaimed from the marshes by Mr. Goodno years ago. Last fall the water stood not inches but feet in depth over hundreds of square miles of this part of Florida. It was at this time the rubber nursery was last destroyed.

Its water lines are yet plainly visible on tree trunks and buildings. As I sat in Mr. Goodno's office I noticed a yellowish stain all about the wall of the room some 18 or 20 inches from the floor. It ran around on the sides of his desk and just under the knob on his safe door. When I remarked on its presence as a water stain, he said, "Sure, water stood all over this part of the country for three weeks."

Just at dusk as we sped along over the dirt road towards the west and Fort Myers I saw on my left a subdivision, with the white posts and cross-arms suggesting high-sounding avenues and boulevards. These posts stood in water at least 18 inches deep, as did all the rest of the subdivision. There were no buildings. And yet this land under the water, some of it a part of each year and much of it all the year, is the very richest of soil. It is marvelously rich with the deposits of decayed vegetation over countless years.

The problem is drainage. Not for any one farmer or group of farmers, but for large districts of many miles area. This is realized by Mr. Ford and by many other men interested in south Florida, the only near-tropical section of our great country. When this is done there will then be a soil available which will be unsurpassed in all the world. There is now consummating such a drainage district several miles wide each side of the Caloosahatchee all the way to the Gulf. This river is extremely crooked. It drains this large area very slowly. It is also the natural outlet to Lake Okeechobee. One big task will be to straighten and deepen this river.



LOOKING ACROSS RUBBER NURSERY TO MR. GOODNO'S HOME.

Then we may have grandiflora and many other valuable plants grown over areas now not available. There are no rubber plantations, nor rubber factories, nor rubber towns of any description possible for years to come in this part of Florida. Yet over periods of hundreds of years the Dutch reclaimed much land from under the sea. This reclaimed area is some of the most valuable agricultural land in the world.

Frequently in the press and in literature sent broadcast over the country are advertisements framed by people who have played this bit of rubber research to sell lots and land next to "Ford's Big Rubber Plantation," etc. I am short of the proper words to describe such people. They are not Floridians, though some of them may be operating in the state. Fraudulently using the mails, selling their souls, betraying the people of the nation, betraying Florida as a state, which above all things wants only the truth told, and, lastly, outrageously using the success and high standing of some of our largest industrialists in misrepresenting their plans and actions, I have given you in the simplest possible language the true story of rubber research in southwestern Florida by Mr. Ford. I have no connection whatever with any of the interests mentioned. But there is the wrong to the state and its people. There is the wrong to those who have come to us

liberal in intent, but are harassed and checked and disgusted because of shameful misstatements. Of far greater importance than might at first be thought is the loss to a state or a nation, due to the often forced curtailment of many valuable researches which are thus left in embryo.

Mr. Goodno, active as a boy, although in the seventies, took a part of his ranch money and bought a mangrove section east of Punta Rassa. Any of my readers who have passed out McGregor boulevard some 15 miles have seen a tall steel tower on the right. This is an observation and survey tower for the purchase. It lies between two bodies of water—Caloosahatchee River on the north and San Carlos Bay on the south. Here he planned a modern Venice. Northern capital soon grasped his vision and paid him \$1,000,000 for a part of the holding. A great song must have been in this old man's heart.

Coming back to Fort Myers, one passes on the left, about one mile west of the Lee County Courthouse, a long, white picket fence. Set back in a veritable tropical garden of tree and plant growth, near the shore of the river, stand two houses which make the winter home of Mr. Edison. Near is the laboratory building, in which much was done for this world by indomitable pluck. Built many years ago, before a railroad ran to Fort Myers, the material was brought by schooner from Punta Gorda, the southern terminus of the old Plant system. Just west of the Edison home is the simple home of Mr. Ford such as any ordinary business man could own. These two are great friends. H. S. Firestone completes a triumvirate. Some time ago the much-loved naturalist John Burroughs was numbered with them—worth-while men on a simple plane.

It is the duty of every citizen to protest against national wrong. Florida is graced by the presence of many worthwhile men; we owe them our protection. We also owe the people of this country protection against gross misrepresentation and wrong. Florida does not desire crooks or any such like within its borders.

### \$1,000,000 Warehouses for Houston.

Details have been worked out by the Channel Warehouse Extension, Inc., Houston, Texas, for the erection of two warehouses in that city, James A. Schiller of Houston, engineer, advising the MANUFACTURERS RECORD that contracts have been awarded at \$1,040,000, but that he is not ready to announce names of contractors. Plans for the structures are in progress and building materials are being purchased. One building will be 177 by 460 feet, four stories, and the other 130 by 460 feet, one story, both of flat-slab concrete and steel construction, with concrete foundations and floors and built-up asphalt roofs. Major items of material to be purchased include structural steel, reinforcing, cement, steel sash, rolling steel doors, sprinklers, conveyors, platform elevator, electric wiring, etc.

### Construction Progress on Dental College.

Atlanta, Ga.—Construction is progressing on the \$250,000 unit of the \$500,000 structure being erected here for the Atlanta-Southern Dental College. McDonald & Co. are the engineers and architects, and the J. S. McCauley Co., general contractor, both of Atlanta. Other contracts have been awarded as follows: Heating and plumbing, Seckinger Bros.; electrical work, J. M. Clayton Co., both of Atlanta, and low-speed elevator, Otis Elevator Co. of New York.

M. H. Crittenden of Birmingham, Ala., has awarded contract to D. D. Thomas & Son, Birmingham, to erect a \$200,000 loft building in that city, 70 by 140 feet, six stories, of reinforced concrete construction. Harry B. Wheelock of Birmingham is the architect.



### Government Reports Probable 15,226,000-Bale Cotton Crop This Year.

According to its October 26 report the Department of Agriculture states that the United States' cotton crop this year probably will be 15,226,000 bales. This estimate, based on the acreage and conditions of October 18, gives the third largest crop in the history of the country, being exceeded only by the 15,693,000 bales produced in 1911 and the record crop of 16,135,000 bales in 1914. The production of cotton in 1924 was 13,627,936 bales and 10,139,671 bales in 1923.

The quantity of cotton ginned to October 18 amounted to 9,519,784 bales, compared with 7,615,981 bales last year and 6,409,391 bales for 1923.

The Bureau of Agricultural Economics makes the following comment on the last cotton report:

"Although some cotton has been lost from storms and delayed picking, prospects have improved and growers in most states are finding more cotton than they expected two weeks ago, indicating a probable crop of 467,000 bales above the forecast based on prospects on October 1.

"Prospects show substantial improvement in all the Gulf states, but the largest change has been in Texas, where prospects have improved to the extent of 175,000 bales. The crop in the western third of Texas is, however, unusually late and the final outturn in that section is still largely dependent on the date of the first general killing frost. The present indications are also subject to material change in Oklahoma, Arkansas and Mississippi, according to the character of the remaining season.

"Of the 46,448,000 acres of cotton standing on June 25, about 2,217,000 acres are estimated to have been abandoned. Although this abandonment amounts to 4.8 per cent of the acreage as originally estimated, it is somewhat below the abandonment expected before the drouth was broken in Texas. In that state abandonment is now estimated at 9 per cent, or 1,641,000 acres. This is about three-fourths of the total cotton abandonment in the United States this season."

ESTIMATED COTTON ACREAGE AND PRODUCTION BY STATES.  
Production  
(500 Lbs. Gross Wt. Bales)

State	Area in Cultivation June 25, 1925. (Prelim.) Acres	Abandonment of Acreage Since June 25, 1925. (Prelim.) Per Cent.	Indicated* Oct. 18, 1925	Ginnings, 1924 Final Census
Virginia .....	96,000	1.0	48,000	39,000
North Carolina.....	2,183,000	2.0	1,120,000	825,000
South Carolina.....	2,740,000	2.5	850,000	807,000
Georgia .....	3,564,000	2.0	1,120,000	1,004,000
Florida .....	115,000	1.0	40,000	19,000
Missouri .....	503,000	4.0	230,000	189,000
Tennessee .....	1,219,000	1.5	475,000	356,000
Alabama .....	3,425,000	1.5	1,270,000	986,000
Mississippi .....	3,424,000	1.0	1,820,000	1,099,000
Louisiana .....	1,916,000	1.7	860,000	493,000
Texas .....	18,237,000	9.0	4,050,000	4,951,000
Oklahoma .....	4,867,000	2.0	1,575,000	1,511,000
Arkansas .....	3,649,000	2.5	1,470,000	1,098,000
New Mexico.....	139,000	27.0	60,000	55,000
Arizona .....	163,000	3.7	90,000	108,000
California .....	1,170,000	1.0	1,130,000	78,000
All other.....	38,000	2.6	18,000	12,000
U. S. Total. ....	46,448,000	4.8	15,226,000	13,628,000

\*Based upon all information available on the date to which the report relates and subject to change from developments during the remainder of the season.

†About 150,000 acres in Lower California (Old Mexico) not included in California figures, nor in United States total.

‡About 70,000 bales additional are being grown in Lower California (Old Mexico).

### \$120,000 Ferryboat for Cooper River.

Charleston, S. C.—A contract has been awarded to the Charleston Dry Dock & Machine Co. by the Cooper River Ferry Commission for the construction of a \$120,000 steel ferryboat for service on the Cooper River between Charleston

and Mount Pleasant. The vessel will be 132 feet long, 35 feet on the beam, with a draft of not more than 7 feet. It will be capable of going ten knots per hour and will have a carrying capacity of 40 motorcars. Seating accommodations will be provided on the upper deck for 400 passengers.

### No Curtailment of Power Service in Tennessee During Recent Drouth.

During the recent prolonged drouth which occurred in the South and Southeast the Tennessee Electric Power Company was able to maintain its own record and that of its predecessors in never having curtailed service to any of its customers. This company in point of output ranks next to the Southern Power Company and the Alabama Power Company. During August and September the output of steam plants was 80 per cent of the system capacity. The largest consumption of power is in the Chattanooga district, and the Chattanooga Chamber of Commerce has highly commended the construction policy and foresight of the management of the Tennessee Electric Power Company in providing adequate steam reserve capacity to carry the electric power load when the rivers were at the lowest stage in their history. The company not only generated its own requirements, but also did not curtail service to a single light or power customer, with the demand on the system 35 per cent in excess of last year. With the arrival of heavy rains early in October, it was possible to curtail steam generation and approach normal operation.

Early in 1925 it was foreseen that this would be a record-breaker as a dry year and the power company speeded up the installation of the fourth boiler at its Hales Bar steam station. The company now has 265,180 horsepower available in hydro-electric and steam plants. At Parksville, on the Ocoee River, there is 30,150 horsepower hydro and 17,420 horsepower in steam, and at Ocoee hydro plant No. 2 there is 24,120 horsepower. Great Falls hydro plant, on the Caney Fork River in middle Tennessee, has a capacity of 33,670 horsepower, and at Hales Bar, on the Tennessee River, the hydro capacity is 54,240 horsepower, while the new steam station has 53,620 horsepower capacity. These are the largest developments of the company. The Tennessee Electric Power Company also controls the output of the Nashville steam station, which is rated at 17,420 horsepower capacity.

The total output of the Tennessee Electric Power Company's system for 1924 was 477,593,985 kilowatt-hours. For the first nine months of 1925 it was 470,690,888 kilowatt-hours, indicating that the company's kilowatt-hour production this year will exceed 600,000,000. The Tennessee Electric Power Company distributes energy over 750 miles of high-voltage transmission lines, serving directly and indirectly 125 cities and towns in middle and east Tennessee. The largest communities served are Nashville, Chattanooga and Knoxville. The company has 74,000 direct customers of its own, to whom electric service is retailed.

### Contract for Santa Rosa Improvements.

Russell H. Gress of St. Augustine, Fla., developer of Santa Rosa, a subdivision of St. Augustine, wires the MANUFACTURERS RECORD that contract has been awarded to the Capitol Concrete Co. for improvements in Santa Rosa to consist of sidewalks, sanitary sewerage, curbs and gutter, city water system, ornamental street lighting, bridges, bulkhead and dredging. Engineering details are being handled by the Peter Kendrick Engineering Co. of St. Augustine.

It is stated that the development calls for more than 8 miles of roadway, 16 miles of sidewalks, 20 miles of storm and sanitary sewers, 9 miles of water pipe, with fire hydrants, two ornamental bridges, beautification of streets and other facilities.

# The Coastal Canal Situation.

By J. HAMPTON MOORE, President of the Atlantic Deeper Waterways Association.

Secretary Hoover of the Department of Commerce, in a recent speech, attracted country-wide attention when he declared for the early improvement for service of the waterways of the United States. The Secretary, indeed, was reiterating and emphasizing what the various waterways associations, some of them promoting special projects, have been urging upon Congress for a long time. Some of these bodies, like the Mississippi River and the Ohio Valley improvement associations, were so aggressive 18 or 20 years ago that they really forced into being an organization along the Atlantic seaboard to promote and protect the wonderfully valuable but greatly neglected streams that border upon or enter into the Atlantic Ocean. An Atlantic Deeper Waterways Association was formed in 1907, and it has held annual conventions in almost every large city from Portland, Maine, to Miami, Fla., including both.

The result of its work has been to stimulate waterways activity in the East. Larger appropriations for Federal improvement of navigable streams have been secured, and much has been done toward linking up a waterway chain inland from New England to Florida. Apart from local improvements—such, for instance, as a deeper channel and a turning basin at Savannah, a deeper St. Johns, a deeper Patapsco leading to Baltimore, a 35-foot channel in the Delaware, improved waterways around New York, a projected 27-foot channel in the Hudson, a deeper port of Boston, in all of which the Association has aided—the Chesapeake and Albemarle Canal, leading from Hampton Roads into the sounds of North Carolina and the Atlantic Ocean south of Cape Hatteras, has been taken over and deepened to 12 feet. That is to say, it is now operated by the Federal Government, free of tolls, producing a heavy tonnage, particularly in lumber and building materials.

On the northern reach, Cape Cod has been cut through by a canal financed by a private corporation. It brings Boston closer to New York and avoids dangerous outside sailing. This canal was used by the Government during the war, and eventually may be taken over and made free. A provision to purchase the canal passed the House of Representatives last year but did not get through the Senate. However, the canal is there, a result of the agitation of those who believed it should be constructed. It saves time and lessens the menace of wreckage at sea.

A big battle in Congress, lasting for 12 years, resulted in 1919 in the taking over by the Government of the Chesapeake and Delaware Canal, another privately owned property, which bisected Delaware and Maryland and connected up the Northern waterways, through the Delaware River, with the waters of Chesapeake Bay. Four years ago construction work was begun on this canal. It has been deepened to 12 feet, new bridges are being erected, and the locks will be removed so that commerce may ultimately have a toll-free waterway for modern barge traffic, saving through a 13-mile cut, an outside sailing distance from, say, Philadelphia to Baltimore, of approximately 325 miles.

This new Chesapeake and Delaware Canal, costing about \$9,000,000 in all, will be completed next spring. There will then be a continuous 12-foot waterway inland from below Cape Hatteras to Trenton, N. J.

The next big move will be to connect the inland waters of New England with those of the Southern states by a canal across the state of New Jersey. The engineers of the Government have concluded a survey of this project, which starts at Bordentown, on the south, and runs about 31 miles to Morgan, below Staten Island, on the north. When New Jersey is crossed, the Federal Government will have placed

at the service of commerce an inside waterway running continuously from New England to Florida, with the exception of a small stretch below Cape Hatteras, which has been surveyed with a view to improvement.

All such internal developments take time. They cannot be accomplished at one session of Congress. Washington, Madison, Monroe, Gallatin and a host of our forefathers dreamed of and planned such an Atlantic coastal project as is now gradually becoming a reality, but the greatest progress upon it has been made in the lifetime of the Atlantic Deeper Waterways Association.

Modern promoters, sensing new fields of endeavor, went so far as to carry this inland chain from the St. Johns River down through Florida. They built a canal, but they had not the means to build it wide enough or deep enough, and today Florida is in the throes of an unparalleled traffic congestion for lack of transportation facilities. The railroads have laid embargoes upon heavy freight. Ships have been called to the rescue and are rendering splendid service, but the harbors and waterways of Florida are not ready for the great pressure that has come upon the state.

The Atlantic Deeper Waterways Association will meet in Miami November 23-26, and Florida problems will come up for discussion. More than that, the news of the entire Atlantic Coast will be considered, and this involves congestion at other points than Florida. Mr. Hoover was right when he sounded his improved waterways note. The railroads may be doing their best. They may be straining every nerve, but they are not keeping up with the power of the great American people to create and to produce for their own market and for the world's trade. These products should not be hampered or held back because the railroads cannot or will not build more tracks.

No real waterways advocate has ever antagonized the railroads. On the contrary, he has wished for their success and for the increase of their carrying power. There may have been some opposition to waterways on the part of shortsighted railroad men, but such opposition has been selfish and has not taken into account the interests of the country as a whole.

The waterway will come, and it may come to gridiron the country, even as the railroads have done, but it comes in no antagonistic sense. It comes to help develop the country, and in effect operates as a feeder for existing transportation lines, such as the railroads.

## Louisiana Experiments With Sugar Beets.

Following several years of experiment in the growing of sugar beets in Louisiana on a commercial scale, the state government has agreed to finance the erection of an experimental diffusion plant and other necessary beet-sugar machinery to further the experiment. Success of the experiment, it is felt in the state, will be of great benefit to the sugar industry throughout the South.

In speaking of "sugar beets in Louisiana," D. N. Barrow of the Louisiana sugar experiment station says:

"For the last five years we never have failed to produce beets, ripening at the first of May, that have contained 12.5 per cent of sugar with a purity of 84 or better. Our tonnage never has been less than 15, and generally runs between 20 and 25. We never have failed to produce a crop, despite the fact that during those five years we have had every extreme season, as regards both moisture and temperature."

The utmost care, says Mr. Barrow, is being exercised in the selection of seed and of planters to aid in the experiment.



# "Parkersburg—The City of Diversified Industries."

**\$600,000 INDUSTRIAL GUARANTY FUND RAISED LAST YEAR—A CENTER OF MANUFACTURE FOR OIL WELL SUPPLIES—RIVER TRANSPORT ADVANTAGES EMPHASIZED.**

By G. W. DUDDERAR, Secretary, Parkersburg Chamber of Commerce.

Some cities owe their commercial supremacy to the production of a single article, some to the production of a certain class of goods, but Parkersburg stands out as a city of diversified industries, having enjoyed a gradual, uninterrupted growth and good times due to the diversity of its manufactured products. Gasoline, lubricating oils, all kinds of machinery, tools, tanks, engines and equipment used in the oil and gas fields, steel sheets, metal stampings, castings, metal and tile roofing, insulated wire, furniture, shoes, clothing and silk are among the articles "Made in Parkersburg."

The steady growth of the city is evidenced in the following population table:

1850 .....	1,218	1890 .....	8,582
1860 .....	2,493	1900 .....	11,703
1870 .....	5,546	1910 .....	17,842
1880 .....	6,582	1920 .....	20,050

A careful enumeration made within the city limits at the close of 1924 gives slightly over 25,000. Including the immediate industrial environs there is probably a population of over 40,000 people. Based on the 1920 census, this population division is about as follows: 98 per cent American-born, 94 per cent white, 4 per cent negro, 2 per cent foreign.

A report of the State Department of Labor shows that Parkersburg has about 150 industries and enterprises, giving employment to over 7000 operatives, of whom about 1500 are women. We have here probably the largest independent shovel plant, the largest electric porcelain plant and the only Vitrolite plant in the country. Parkersburg is the largest producer of oil-well supplies, rigs, and reels, tanks, drilling and fishing tools in the United States. Oil drilling, refining and shipping interests represented by plants and offices in Parkersburg represent invested capital of at least \$500,000,000, and form the backbone of the city's industrial life.

There are nine banking institutions with resources of over

extend material co-operation and service to home industries to encourage their enlargement. In this connection a \$600,000 Industrial Guarantee Fund was raised last winter to afford financial co-operation to substantial industries seeking relocation or enlargement. This fund brought into one co-operating community agreement over 450 "Believers, Boosters and Builders," and was a wonderful impetus in the development of the necessary community spirit.

Following the raising of this fund, but without necessitating its use, the Board of Commerce brought about the establishment of three new industries which, when their definitely planned building program, covering a period of from three to



PARK AVENUE RESIDENCE SECTION.

five years, shall have been completed, will mean the investment of about \$12,000,000 and the employment of between 5000 and 6000 operatives, adding over \$400,000 a month to the factory payrolls. One of these new plants is to be built by the Parkersburg Iron & Steel Co., a home industry, which will also add 50 per cent to its present rolling-mill capacity. Another is a plant to be built by the Penn Metal Company of



BUSINESS SECTION OF PARKERSBURG—MARKET STREET.

\$22,000,000 and deposits of over \$17,000,000, and three building and loan associations with assets of about \$2,000,000. Post-office receipts of 1924 were \$193,777, an increase of 135 per cent in the past ten years.

Eighteen months ago the Board of Commerce determined to put into operation a vigorous industrial development program, not only to bring into this trade zone new industries but to

Boston, Mass., a concern which has been in continuous successful operation for over 50 years, and which will consolidate in Parkersburg its three Eastern plants, ultimately investing close to \$2,000,000.

The third new industry is the great plant to be built here by the Viscose Company, manufacturers of rayon, with head offices at Marcus Hook, Pa. This company, with resources of

about \$180,000,000, now has three great rayon plants, located at Marcus Hook, at Roanoke, Va., and Lewistown, Pa., and a pulping plant at Nitro, W. Va. These plants employ over 12,000 operatives. Government reports indicate that the company produced over 30,000,000 pounds in 1924, which was close to one-third of the world's production of rayon. The Viscose Company, after investigating over 30 cities east of the Mississippi River, decided, because of the ideal conditions here for the economic manufacture and the distribution of rayon, to establish a big plant. The location selected is four miles from the City Hall, on the south side of the Little Kanawha River. About 125 acres have been purchased. In

highway has its own bridge over the Ohio near Parkersburg. The east-west route, known as the Northwestern Turnpike, will be hard-surfaced this year from east of Clarksburg practically through to Cincinnati and Columbus. This highway also has its own bridge over the Ohio at Parkersburg. These are the only highway bridges over the Ohio between Wheeling and Ashland, Ky., a fact of great interest to tourists.

Through Parkersburg passes the Baltimore & Ohio Railroad—New York-St. Louis main line—giving splendid passenger and freight service, quick and direct connections with the National Capital and metropolis on the east and with St. Louis, the gateway of the great West. The Ohio River division



BIRD'S-EYE VIEW OF PARKERSBURG, WITH OHIO RIVER AT LEFT.

reaching a decision on this site the chemical purity of the waters of the Little Kanawha River was a factor of importance, as from 4,000,000 to 6,000,000 gallons daily will be used when the plant is in full operation.

The new plant will cover close to 75 acres, and contracts for the first two units will probably be let this month. These two units will be completed within 12 to 15 months, and will represent an investment from \$5,000,000 to \$6,000,000, and will provide employment for over 2000 operatives. The construction of two additional units will immediately follow, so that within three years four units will be completed, representing an investment of over \$10,000,000 and providing employment for over 4000 operatives. Based upon present demands for rayon and the rapidly growing uses to which it is put, the Viscose Company has already indicated the probability of continuing an uninterrupted building program covering five to six years and making this a six-unit plant in which will be employed some 6000 operatives, with a monthly payroll of over \$500,000. Through agreement with the Board of Commerce, a one-half-mile extension of paved highway and street-car line will be made to the factory site and an industrial railroad built by the Baltimore & Ohio, these improvements costing over \$300,000.

At least six of Parkersburg's established industries have either definitely launched enlargement programs or are planning expansions, which in the aggregate will represent close to \$2,000,000 of additional investment. The industrial development known to be definitely planned for this community will within a period of about five years add about 6000 industrial workers, or practically double the factory payrolls.

Parkersburg is now the converging point of five hard-surfaced roads, two of which are Federal highways, one north-south route, the other east-west route, which within a few years will be hard-surfaced for many miles. The north-south route is known as the Lakes-to-Florida Highway and is the shortest route from Ohio and the north-central section to Florida, and by 1926 it will be 95 per cent hard-surfaced. This

gives north and south service, while the Muskingum River division gives direct sleeping-car connections with Chicago and Detroit, and the Little Kanawha division reaches the interior of the state. Parkersburg is the terminus of four railroad divisions.

Street railway, electric light and power service is furnished by the Monongahela-West Penn Public Service Company.

The wonderful possibilities of river transportation offered cities in the Ohio River Valley cannot be measured. Within the next five years the Ohio will be navigable from Pittsburgh to the Mississippi throughout its 1000 miles of length by the completion of the Government lock and dam system; this program has been under way for the past 45 years and at the present rate of progress will be completed before 1930. These river transport opportunities are further enhanced by possibilities of development up the Little Kanawha, which is made navigable for about 40 miles by its system of locks and dams, tapping a section rich in mineral and agricultural resources. Already the Standard Oil Company of Parkersburg is operating eight barges handling crude and refined oil products, with an aggregate carrying capacity of 24,000 barrels, the service giving splendid results, while iron and steel products and coal are moving in vast quantities by water at transportation costs far below rates possible for rail carriers.

The city has over 50 miles of paved streets; assessed valuation of \$43,226; a total bonded indebtedness (without deducting cash in bank and various sinking funds) of \$987,000, or less than 5 per cent of the city's valuation.

The Parkersburg school system ranks high. The splendid high school, with its 27-acre campus and seating capacity of from 12,000 to 15,000, represents a valuation of at least \$1,000,000. The city also has a junior high and thirteen grade schools; these will be supplemented by several new buildings now included in a \$575,000 building program to be completed during 1926. Parkersburg has also two parochial schools, a Catholic girls' academy, a private school and a business college.



### Growing Importance of the Pecan Nut in Southern Agriculture.

King Cotton has been dethroned in southwest Georgia, abdicating in favor of Prince Pecan. The development of the production of this luscious nut in the South is placing it among the leading agricultural products in some sections. Albany, Ga., claims to be the world's pecan center. The pecan industry has reached such proportions in that part of Georgia, formerly an all-cotton country, that, like in the peach and apple sections, an annual festival is held at harvest time in celebrating the crop.

Last week such a pecan festival was held at Albany, which rivaled any similar event staged in that section. During the celebration an allegorical history of the pecan industry, from the first mention of the nut in history to its position today, was presented. The first written reference to the pecan is said to appear in an old history dealing with the march of De Soto to the Mississippi.

The large luscious paper-shell and other cultivated varieties with which the modern pecan grove is stocked share in the great acreage development of the industry since the days of America's discovery.

About eighteen years ago in the Albany district the first large commercial pecan grove in this country is said to have been planted. Today, within a radius of 50 miles of Albany, there are more than 1,000,000 bearing trees, producing annually more than 3,000,000 pounds of nuts, with an aggregate value of over \$1,000,000. Young groves abound on every hand and each year sees more and more acres planted to the nut, and future years will see, it is predicted, a pecan crop produced in southwest Georgia which will be worth many times the value of the greatest cotton crop ever grown in that section.

Three large co-operative associations have their headquarters in Albany. They are the National Pecan Exchange, the Paper-Shell Pecan Growers' Association and the Southern Pecan Growers' Association. Each year these three associations, together with private dealers in Albany, handle in excess of three million pounds of the nuts. The yearly yield is growing, and pecan lands in Albany territory are for sale only at premium prices.

The number of pecan trees, bearing and non-bearing, including budded, grafted or cultivated varieties, and seedlings, from Virginia south and west, including Texas, has increased over 60 per cent since 1910. It has been estimated that by 1930 there will be growing in 13 states of the South more than 10,000,000 trees. In 1920 the South produced 30,000,000 pounds of pecans from less than 5,000,000 trees, and it may be expected that by 1930 certainly 60,000,000 pounds of pecans will be produced there. It is further predicted that the pecan crop in a few years will be worth approximately \$24,000,000 to the South.

Great is Prince Pecan in the nut-growing regions of the South!

### Additional Facilities for Telegraph Company.

Discussing construction activities of the Postal Telegraph-Cable Co., G. W. Ribble, general superintendent of the Southern division, with offices in Atlanta, advises the MANUFACTURERS RECORD that the company is expending large sums to provide additional facilities for handling a rapidly increasing business in Florida and throughout the South. In Florida it has completed additions which practically double its facilities in that state, and additional wires are being requisitioned to be ready for service by the first of the year.

The company is erecting a two-story building in the rear of its present business office at Miami, into which the operating department will be transferred, affording much more space for the accommodation of customers. A number of

branch offices have been opened throughout the city and five miles of underground cable will be installed. Additional branches are also being opened at Palm Beach, Daytona Beach, Tampa and Jacksonville, and new offices have recently been established, or are about to be opened, at Melbourne, Lake Worth, Hollywood, Coral Gables, Starke, Webster, Winter Garden, Haines City, Winter Haven, Auburndale, Tallahassee and other points. A new office is being equipped at St. Petersburg, and offices at Tampa, Jacksonville and West Palm Beach are being enlarged.

Additional special facilities between Florida and New York and the West are also being provided, as well as additional wires from other sections of the South.

### The Cotton Industry Trade in Various Countries.

Manchester, England, October 23—[Special.]—Following is a summary of the cotton trade in various countries as contained in the current issue of the International Cotton Bulletin:

Belgium—In spinning and weaving the demand continues satisfactory and order books show plenty of business. There is no necessity to think of short time at present.

China—The past year has been difficult for manufacturers, and prices of the finished product have seldom shown any margin of profit. Curtailment of production, lack of yarn demand and comparatively high cotton prices have been the outstanding features of the year.

Denmark—During the last few months the position of the Danish cotton industry has become considerably worse. The mills are running only about 60 per cent of normal capacity.

France—There is a steady current of business and manufacturers of staple goods are engaged up to the beginning of next year. Stocks are very small. The outlook is labeled as "uncertain."

Hungary—The situation of the Hungarian cotton industry is becoming more satisfactory. Spinning mills are working full time and weaving sheds are now working 58 hours a week. Selling of cotton goods is easy.

Italy—During the past month spinning and weaving mills have been working full time. New orders are coming in, but their volume is smaller than recently. Generally speaking, Italian mills are booked for four or five months ahead and many have sold their output until March and April next year.

Mexico—Reports state that the textile mills in Mexico are heavily overstocked and are unable to market their production at a profit.

United States—Domestic mills are believed to be comfortably sold ahead about sixty days on printed cloths and sheetings and sixty to ninety days on heavy printing specialties. Manufacturing margins have generally improved further and inquiries are large enough to afford encouragement for the near future.

### Co-operative Apartment to Cost \$8,000,000.

Miami, Fla.—By the terms of a contract recently entered into by Carl Fisher, developer of Miami Beach, and the Co-owners Apartment Corporation, New York, a co-operative apartment building is to be erected at Miami Beach at a cost of \$8,000,000. It is planned to erect the building on the Biscayne Bay side of Miami Beach, near the Argonaut Club, on La Gore Island. It will be of Venetian-Italian architecture and will contain 216 apartments, 150 servants' rooms, 200 garage spaces and 40 small shops. The main section of the building will be 22 stories, while other sections will be 6, 9 and 12 stories. A feature of the structure will be two campaniles, each nine stories, to contain one apartment on each floor. Schultze & Weaver of New York are the architects.

# Developments on the Mississippi Gulf Coast.

Chamber of Commerce,  
Gulfport, Miss., November 2.

## *Editor Manufacturers Record:*

The following resume of projects and buildings now under construction or proposed for Harrison county, of which Gulfport is the county-seat, includes nothing that was completed prior to the year 1925.

A 14-mile seawall is under way. In general it consists of a series of massive reinforced concrete steps, and is designed to resist an impact of not less than 2000 pounds per square foot. The following quantities of materials are to be used: 2000 carloads of sand and gravel; 125,000 barrels of cement; 4500 tons of steel reinforced rods; 1400 tons of expanded metal reinforcement. The cost of the present project is \$2,000,000, the ultimate cost to be \$3,000,000, with an expenditure of \$1,000,000 on Beach road adjoining. The work is under the supervision of Harrison County Supervisors, together with the Beach Road Protection Committee. H. S. Shaw is engineer and the Gulfport & Woods Brothers Construction Co. of Lincoln, Neb., is contractor.

Harrison county has voted \$1,500,000 of bonds for roads and bridges. Contract has been let for building a reinforced concrete bridge across Biloxi Back Bay at a cost of \$326,000; the contractor is A. M. Blodgett, Inc., New Orleans, Federal and state engineers are making drawings for a concrete bridge across Bay St. Louis to cost \$650,000; bids will be advertised for in about 60 days and contract awarded early in January, 1926; this project is supervised jointly by Harrison and Hancock counties. Federal aid to Harrison county projects will swell the total to \$3,000,000.

Among city projects is the Gulfport paving program to cost \$640,000; H. D. Shaw is city engineer. Pass Christian has already spent \$125,000 on street paving and is now putting in storm sewers. Biloxi has about completed paving the principal streets; the paving and school program amounts to \$1,000,000. Long Beach is now erecting a school building. Also, North Biloxi and Handsboro and Gulfport are erecting school buildings.

Harrison county is spending considerable sums for school purposes, one structure under way being the \$50,000 Harrison-Stone Counties High School and Junior College. There are no one-teacher schools in the county.

Among the largest private development projects is the Edgewater Gulf Hotel, to be built midway between Gulfport and Biloxi by the Edgewater Beach Hotel interests of Chicago. This structure will be 10 stories high, with 400 rooms, each room facing the Gulf, and will cost \$2,000,000. Benjamin H. Marshall of Chicago is the architect, and J. W. Billingsley of New Orleans, consulting architect. The hotel will be of Moorish-Spanish design, of reinforced concrete, and will have a garage underneath for storage of cars. Other developments in connection with the hotel are an 18-hole golf course, a country club, recreation pavilion, Venetian canals, glass-enclosed concrete salt swimming pool heated by steam pipes, etc. The various projects will cost eventually \$5,000,000.

Another large hotel now under way is Pine-Hill-on-the-Bay at Shell Beach, on Bay St. Louis. This development is being carried out by New Orleans people, with Geo. J. Glover of that city as contractor. The structure is of concrete and the first unit of the hotel will consist of 160 rooms and cost \$750,000. The hotel company owns 2450 acres of land, valued at \$500,000. A very fine 18-hole golf course is already in operation, together with clubhouse, a number of cottages, etc. This project will eventually involve an expenditure of \$3,000,000.

The owners of the Buena Vista Hotel at Biloxi have

recently let contract for a \$350,000 addition. The White House Hotel, of the same city, is planning a large addition. Other building projects in the county will total \$1,000,000. The Illinois Central and Louisville & Nashville are spending upwards of \$1,000,000, the latter installing a block system and the former relaying tracks and improving harbor facilities.

Proposed projects include a hotel at Henderson Point, \$1,000,000; Deer Island resort, \$3,500,000; Cat Island resort, \$10,000,000.

The foregoing does not cover the many large development plans now being carried out on the Mississippi Gulf coast. New Orleans, Chicago, Memphis, New York, Buffalo and Kansas City capital has been poured into this section by the millions, and a very wonderful future has dawned for one of the most attractive, although undeveloped, sections of the South. City, county and public-utility officials are active in making permanent improvements.

Gulfport received its greatest impetus with the advent of the Illinois Central Railroad through the purchase of the Gulf & Ship Island line. This city and section is also served by the Louisville & Nashville. Two other factors of great importance to us are the Mississippi Power Company, with a superpower system covering a large part of Mississippi, and our very real harbor facilities. Gulfport has a channel maintained at a depth of 23 feet, and the Illinois Central docks are operating here at a great saving of time and expense when compared to many other ports.

The Chamber of Commerce is inviting prospective industries to investigate local living conditions; shipping facilities, including import and export opportunities; abundance of such raw materials, as cotton, lumber, etc.; nearness to hardwoods of Pan-America; abundance of local woods, such as gum, poplar, oak, and attractive power rates.

A great deal of truck farming is carried on in Harrison county. Farmers do well here operating 10 to 50 acre farms. The chief products are pecans, grapes, Satsuma oranges, strawberries, sugar cane, and practically all vegetables. This means reasonable living costs for industrial workers.

S. A. SPIVEY, Secretary.

## **\$2,000,000 Addition for Memphis Plant Manufacturing Automobile Bodies.**

Memphis, Tenn.—Expansions to cost about \$2,000,000 will be made to the auto body manufacturing plant here of the Fisher Body St. Louis Co., of which William A. Fisher is president. Work on the project will begin at once and will involve the addition of 125,000 square feet of floor space, increasing the dry kiln capacity by 75 per cent, doubling railroad sidings and increasing the power plant 50 per cent. Production of the plant will be increased about 50 per cent, and upon completion of improvements it is stated that the working force of 1000 will be increased to 2000.

## **Charlotte Factory for Scandinavia Belting Company.**

Charlotte, N. C.—It is announced here that American headquarters for the Scandinavia Belting Co., with home offices in Scotland, will be established in this city, and that the Charlotte office of Lockwood, Greene & Co., engineers, of Boston and Atlanta, has been commissioned to prepare plans and specifications for a \$200,000 factory in Charlotte. The plant will be so designed that it may be trebled in size when expansion of business demands. It will employ about 75 people at first.



# A Baltimore Industrial Plant Turning Out 3,000,000 Pounds Monthly of Brass and Copper Tubing.

Upwards of 3,000,000 pounds of seamless brass and copper tubing, brass and copper in rolls and strips and bus bar copper are being produced monthly at the big plant of the Baltimore Tube Company, Inc., located on Wicomico and Bayard sts. in the southwestern industrial section of Baltimore. Expansion of facilities and production has been steady since the plant was established, the tube mill being erected in 1912, and the sheet mill in 1919. Some 700 employees are now engaged in operating the plant at capacity, and most of the units run 24 hours daily.

The plant covers a tract of 10 acres and is located near the main line of the Baltimore & Ohio Railroad. Copper and zinc are obtained from various refineries and smelters. Practically all the material used is virgin metal, with exception of the scrap made in their own plant or their own scrap purchased back from their customers. Hard coal in large quantities is used for melting copper by the crucible method. All other alloys are made in the most modern types of electric

furnaces, and there are half a dozen in operation, each with a capacity of 800 pounds per charge.



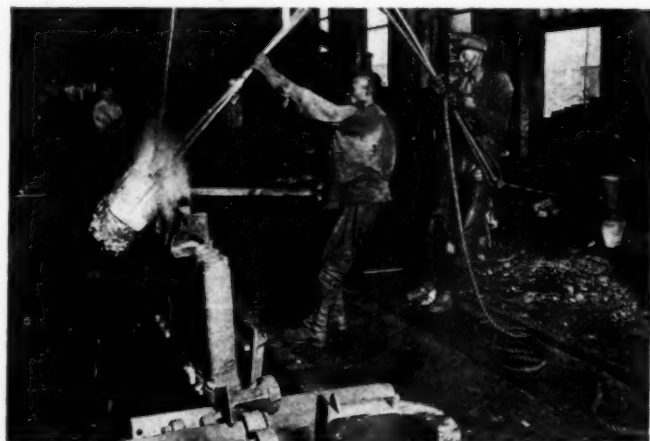
SEAMLESS TUBES READY FOR INSPECTION.

The plant is divided into two major units—the tube department and the brass and copper strip and bus bar department.

Raw materials come to the receiving room from cars on a siding running parallel to this building. They are carefully weighed and stored in respective bins. Before an order either for tubing or sheet copper can be filled it is necessary for the company to know to what use the finished product will be put. It is then possible so to mix the the raw materials and to regulate the several processes through which it must pass before shipment as to give exactly the proper chemical and physical proportions desired. Individual attention, therefore, is given to every order.

In the casting department two methods are employed—the crucible and electric furnace. The tube castings are cylindrical, the strip brass rectangular. All castings are poured in an upright position. At the electric furnaces a novel pouring floor is used; the operator stands on a circular platform with molds attached about its circumference at regular intervals. As one billet is cast, the platform is revolved to bring another beneath the electric furnace. Exceptional care is used in preparing and cleaning the molds before a casting is made.

Following the casting, the billet surfaces are machined off to remove all defects before they go into the process of being manufactured into tubing. The next operation is the piercing, in which the billet is made into a tube. This is accom-



POURING METAL INTO MOLDS.

plished by passing the billet while hot through a set of heavy conical rolls which crowd the metal forward over a mandril, forming the hole or hollow center, thus insuring a homogeneous seamless tube. The material is carefully pickled, cleaned, pointed and cold-worked on benches. The drawing apparatus

is an electrically driven endless chain operating on the draw benches. Highly polished and high-grade dies and bulbs are used. After each drawing operation, annealing and cleaning is necessary. The processes here described are repeated until the required size pipe results. Then follows straightening operations, cutting to required lengths and careful individual inspection, followed by hydrostatic and air tests. The product is carefully packed in specially constructed cases designed to protect the tubes from damage in transportation.



OIL-FIRED ANNEALING FURNACES.

After the metal for strip brass is cast, it is conveyed by trucks to the sheet-mill department. The dross end is sheared off until inspection shows good, sound metal. It is placed next on what are known as breakdown rolls. The outside surface of the entire bar is milled until all imperfections and scale are removed. Both milling machines and rotary rolls are employed for this purpose. The material is then ready for the first rolling process. It must be annealed,

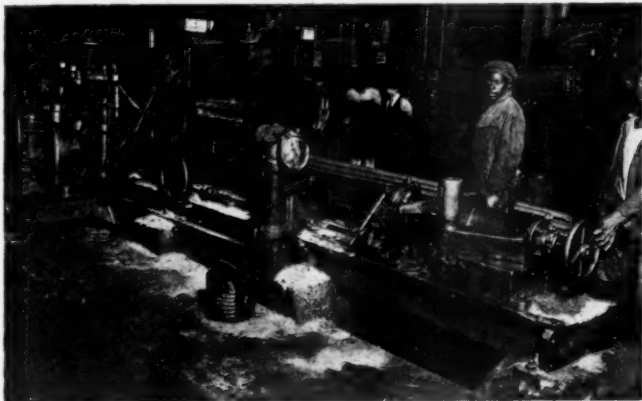
pickled and cleaned after rolling. The standard practice is to roll copper for sheets and bus bar while hot down to 3/4 inch to 1/4 inch. The remaining operations are cold-worked. In the case of brass, all operations are cold-worked.

automatic conveyors. Absolute heat control is assured by pyrometers. Air-driven pushers move materials through the furnaces.

Many modern devices for reducing labor costs are used throughout the plant. Compressed air is extensively employed. Twenty electrically driven cranes of various types and sizes are operated and equipped with handling tools of wide variety to care for the various products. Specially constructed metal platforms are used for handling the materials in the sheet mill.

One of the most important units in the successful operation of the sheet and tube departments is the laboratory, where raw materials and finished products are carefully tested for both physical and chemical properties. New and modern equipment has been installed to facilitate this work. Through the tests made in the laboratory is made possible the production of finished products to specification.

A complete machine shop, fitted with tools of every description, not only cares for necessary repairs to machinery about the plant, but handles the building of new machinery of special design when required. A carpenter shop is an important unit to care for repairs and improvement promptly. Millions of feet of lumber are stored in the yards at all times,



IN THE PIERCING MILL.

as most of the finished product has to be carefully boxed before shipment, and a large force of men is engaged in making boxes and in packing and sealing. The materials advance step by step in manufacture, so that following inspection they are adjacent to the shipping and packing floor of the manufacturing unit and alongside the platforms for delivery by truck, or next to sidings for freight-car delivery. Considerable material is consumed in Baltimore territory and delivered by autotruck. Large quantities are shipped to domestic and foreign ports via steamboat lines reaching Baltimore, and these orders are delivered by truck to the respective wharves.

The tremendous building program under way throughout the country during the past few years has naturally had a marked effect on the business of the company. The demand for brass pipe for residences, apartment houses and hotels, office buildings and similar structures has been growing rapidly, and the use of these materials is further stimulated by the expansion of the country's construction activities. Among other uses to which the company's products are put are the manufacture of lamps, automobile accessories, miscellaneous electrical equipment, automobile equipment generally, safety razors, gutters, spouts, roofing, spinning and stamping goods, hardware, power-plant equipment, sugar-mill equipment, metal windows and hot-water heaters.

The congregation of the Christian Church, Norman, Okla., has inaugurated a campaign for funds with which to erect a \$250,000 church building.

## Justice Demands We Cancel the Allies' Debts.

5111 Main Avenue.

Norwood, Ohio, October 27.

*Editor Manufacturers Record:*

Please permit me to warmly approve of the stand you take in regard to the financial obligations of the Allies to us.

I feel that for many months the Allies were fighting for us also, giving their blood in exchange for the dollars that we advanced to them with which to carry on while we were preparing. Hundreds of thousands of American lives were thus saved, and as a matter of simple justice we should cancel these loans.

Data gathered by the Institute of Economics of Washington, endowed by the Carnegie Corporation, show that France cannot pay without disaster. Taxation consumes about 25 per cent of the resources of the people, and in England 22 per cent, against 10 per cent in this country. This data is reprinted in the Literary Digest of October 17.

Ours is the richest country ever known; its wealth is constantly increasing, with a standard of living and comforts that exist in no other nation. Our orgy of extravagant spending for pleasures is a lamentable spectacle when compared to the plight of the Allies.

The letter of Congressman A. Piatt Andrew of Massachusetts in your October 15 issue expresses a spirit of humanity and consideration that I would like to see permeate the entire country.

We should cancel these debts, not in a spirit of charity but in a spirit of the simple justice that we owe to our Allies.

S. E. SIMPSON.

## Chemical Unit in Operation at Tulsa.

The Ozark Chemical Company of Tulsa, Okla., wires *the MANUFACTURERS RECORD* that the first unit of its new acid plant was put in operation on October 15. This unit will have a producing capacity of 800 tons a month, and the second unit, now building, is expected to be in operation next January, increasing the output to 1600 tons monthly. The company is doing its own engineering and construction work, although the Pioneer Tank & Boiler Co. of Tulsa is furnishing the major portion of special equipment.

The Ozark Company, it is said, has already contracted with large refineries for the greater portion of its sulphuric acid output. It is estimated that \$500,000 will be expended during the first year of operation.

## \$1,750,000 Hotel for Birmingham.

Work is expected to begin soon on construction of the proposed Hotel Bankhead at Birmingham, Ala., according to a reported statement by officials of the Bankhead Hotel Co., which will erect the building. H. L. Stevens & Co. of Chicago, who will handle the design and construction of the hotel, wire *the MANUFACTURERS RECORD* that the building will be fireproof, of steel and concrete construction, and will be located on a site 105 by 100 feet. It will be 15 stories high, to contain 350 rooms with bath, and will cost approximately \$1,750,000, including ground, construction and furniture.

## Will Fulfil Father's Plans for Extension.

Webster James, son of the late C. E. James of Chattanooga, Tenn., is quoted in a press report as saying that he intends to fulfil the plans of his father for an extension of the Tennessee, Alabama & Georgia Railway from Gadsden to connect with the Seaboard Air Line at Odenville, Ala., or some other suitable point, a distance of 25 or 30 miles. Surveys have been made and rights of way are to be obtained soon. It is understood that the extension will open up coal, iron and timber lands.



### \$700,000 Insurance Building at Baltimore.

General contract has been awarded to J. Henry Miller, Inc., a local contractor, for the proposed building to be erected at Charles and Chase streets, Baltimore, by the Mutual Life Insurance Co. of Baltimore at a cost of approximately \$700,000. The structure will be five stories and basement, 175 by 75 feet, to consist of a steel skeleton, with limestone on the two street fronts and brick on the remaining two. It will



NEW STRUCTURE TO BE ERECTED BY MUTUAL LIFE INSURANCE COMPANY.

have a slag roof, reinforced concrete floors, treated with cement, terrazzo, wood and linoleum. Steam heat, electrical work and plumbing are included in the general contract. Parker, Thomas & Rice of Baltimore are the architects.

### Contract for \$1,000,000 Building in Charlotte.

Charlotte, N. C.—General contract has been awarded to the Hunkin-Conkey Construction Co. of Cleveland, Ohio, for the new building to be erected here by the First National Bank at a cost of approximately \$1,000,000. The building will be 20 stories, 50 by 126 by 60 feet, with a 45-foot ell in the rear. It will contain a banking room on the first floor to the height of three stories and a width of 36 feet in front. Vaults and safety deposit boxes will be located in the basement. Floors above the banking room will afford space for 400 offices, which will be served by one freight and four passenger elevators. Lockwood, Greene & Co. of Boston and Charlotte and Louis H. Asbury of Charlotte are associated architects.

### To Build \$240,000 Garage.

The Frank Coxe Company, realtor, of Asheville, N. C., wires the MANUFACTURERS RECORD that T. C. Coxe of Asheville will build a garage in that city to cost \$240,000 with equipment. The structure will be 128 by 140 feet, three stories, of hollow tile with brick facing, and will be rented to the Richbourg Motor Co. Albert C. Wirth is the architect.

### Natural Bridge Resort Changes Ownership.

Confirming a report of purchase by himself and associates of the Natural Bridge resort in Rockbridge county, Virginia, Oliver J. Sands of Richmond advises the MANUFACTURERS RECORD that the Natural Bridge Hotel and property—about 1400 acres—will be owned by the Rockbridge Corporation, with main office in Richmond. Officers will include Mr.

Sands as president; J. Lee Davis, vice-president, and Walter Holladay, treasurer.

Operation of the hotel will be in the hands of the company, under the management of H. M. Lotts of Natural Bridge. A golf course is being constructed, a new tea house will be built at the entrance and general improvements made for the accommodation of tourists. Sites for villas will be sold.

### New \$500,000 Bank and Office Building.

Plans are being considered by the Fourth and First National Bank and the Fourth and First Bank & Trust Co., Nashville, Tenn., for the erection of a new building in that city. Outlining details of the proposed structure, James E. Caldwell, president of the two institutions, wires the MANUFACTURERS RECORD that the building will be located on a lot 85 by 100 feet, and will be 10 stories high, to cost approximately \$500,000. Ludlow & Peabody of New York are the architects.

### \$10,000,000 Additional for Duke University.

Durham, N. C.—According to the terms of the will of the late James B. Duke, a total of \$10,000,000 more has been provided for Duke University here. Of this total, \$4,000,000 will be used to provide buildings and facilities for a medical school and hospital and \$6,000,000 for an endowment for these institutions. Work is expected to begin soon on the construction of necessary buildings.

In addition to the \$4,000,000 for buildings for the medical school and hospital, the will also provides an additional sum of \$7,000,000 for the building fund of the university, and these sums, added to \$8,000,000 previously provided, make a total of \$19,000,000 available for buildings.

### Two College Buildings to Cost \$650,000.

Greensboro, N. C.—General contract has been awarded to the J. A. Jones Construction Co., Charlotte, for the erection of an auditorium and an education building for the North Carolina College for Women, the former to cost approximately \$400,000 and the latter \$250,000. B. MacKenzie has been awarded heating contracts for both structures, while W. P. Donaldson has secured contract for plumbing in the auditorium and the Crutchfield Plumbing Co. for similar work in the education building, all of these being local firms. Contract for electrical work in the education building has been awarded to the Michael Bivens Co., Greensboro, and for similar work in the auditorium building to the People's Electrical Co. of Winston-Salem. Harry Barton of this city is architect for both structures.

The auditorium building will front 116 feet on Tate street and extend 169 feet on Spring Garden street, with its main entrance on the Tate street side. It will be three stories, of classical architecture. The main auditorium, to seat 2700, will occupy a portion of the first floor and will be provided with a balcony, rest rooms and other facilities. The building will be of brick construction with limestone trim.

A site for the education building has been provided on Teague field near the alumnae tea room. It will face Spring Garden street, with a frontage of 236 feet, and will follow a southward line for 188 feet. The structure will be two stories, of architecture similar to that of the auditorium. Work will begin at once on this structure and is expected to be completed within a year.

Brazoria district No. 26, P. L. Richens and Robert Stringfellow, Freeport, Texas, county commissioners, has voted a bond issue of \$300,000 for building roads.

## THE IRON AND STEEL SITUATION

### Continued Favorable Condition in Steel.

Pittsburgh, November 2—[Special.]—The increase in the Steel Corporation's earnings from \$40,624,221 in the second quarter of the year to \$42,400,412 in the third quarter was probably due to greater activity of the transportation companies, for shipments of steel products may be estimated as having decreased from about 3,250,000 tons in the second quarter to 3,000,000 tons in the third quarter, and there would hardly be a decrease in production cost in the circumstances, while nothing in the market would indicate an increase in realized prices.

For the present quarter shipments will be higher than in the third quarter. An 80 per cent rate, which is easily possible, would make 3,350,000 tons, while shipments as low as 3,000,000 tons are entirely improbable. Thus the quarter's earnings are likely to run above \$40,000,000, including less earned by transportation facilities than in the third quarter. This would make the year run distinctly above \$160,000,000, making the year a fair one, but with much smaller earnings per ton than used to be secured in even moderately good times.

The steel market has continued in very favorable condition. There is freer buying in all except the unseasonable lines, oil-country goods and tinplate, than there was in August or September. The influences are the stiffening tone of steel prices, the fact that mills have fallen somewhat behindhand in deliveries in several lines and the chances that railroad movement will slow down. For months past buyers have had unprecedentedly low stocks—almost no stocks at all.

In consumption there is no increase, consumption having already attained a high rate, and in the winter consumption decreases somewhat in some lines. The tendency to replenish stocks comes at a favorable time for the mills, which may be able to maintain practically their present operating rate without having to fall back on rails, though they have that line in reserve, bookings for the new year now totaling fully 1,000,000 tons. Frequently the mills roll rails in December and January merely to maintain operations.

Estimating steel ingot production in the last three months of the year at 5 per cent over the September rate, which seems to have been approximately the rate in the past month, the year's ingot production would be 43,400,000 tons. Three years—1917, 1918 and 1923—came close together, with production between 43,000,000 and 43,650,000 tons. This year's production would be 25 per cent above the average in the past six years since the war.

Requirements next year may easily be larger, without any marked improvement in general conditions, simply because efficiency has been increasing and year by year a given tonnage of steel is absorbed with less effort.

The general trend in steel prices is a stiffening one, but substantial advances are improbable, recent experience having shown that when mills accumulate backlogs and mark up prices the market is likely to react again before buyers have to take hold afresh in any large way. The important thing is that for at least two months past the general tone has been a stiffening one, whereas for six months previous the appearance was that of softening, though actual declines did not amount to much, in the average of all steel products.

The most marked advancing tendency is in sheets, which had been conspicuous for declines for several months up to July. Galvanized sheets are undergoing a special advance on account of the sharp rise in zinc.

Connellsville coke continued advancing until a week ago, by reason of very active and competitive buying by Eastern consumers, the market getting up at a range of \$8.50 to \$9,

practically a tripling of last July's level. Then inquiry became light and possibility of a reaction is not absent, as coke has not been sold any distance ahead and production has increased sharply.

There is no telling what coke will cost the merchant furnaces for the first quarter, the furnaces being covered through this year at about \$3. As a sort of compromise, pig iron at valley furnaces has just gone up a dollar following the recent 50-cent rise, also ascribable to the coke situation, making Bessemer \$20.50, basic \$19.50 and foundry \$20 f. o. b. valley furnaces.

### Strong Demand for Southern Pig Iron Even at Higher Prices.

Birmingham, Ala., November 2—[Special.]—Pig iron is in such strong demand that furnace interests in the Birmingham district are exercising care as to overbooking on certain grades, delivery during the first quarter of the coming year. An advance in quotations, now up to \$21 and \$21.50 per ton, No. 2 foundry, has not quieted down the inquiries for the product, and the indications are that there will be warrant for material increase in the probable make. The Sloss-Sheffield Steel & Iron Co. has a large force of men at work getting the No. 1 blast furnace at Gadsden in shape to start up. Work on the furnace under repairing by the Republic Iron & Steel Co. is being rushed with expectations of being able to resume operation in the next week. Surplus iron is being taken now in quantity to meet needs of melters in this and other territories. No small amount of iron is moving by water-rail to foundries in the middle West, stove makers in particular.

Before the turn of the year the indications are there will be no surplus iron here at all. The make by then, however, will have been increased between 750 and 1000 tons daily. This will not be any too much, judging from the inquiries received. Small-lot orders, delivery during the present year, command \$21.50 per ton, and before the furnace was blown out the Central Coal & Iron Co. was reported to have been receiving \$22 and even more per ton on carlot orders, immediate delivery. The Sloss-Sheffield Steel & Iron Co. has sold well into the first quarter, while the Woodward Iron Company is not making much effort to get business but caring for old customers and those requiring their special brand. The Republic Iron & Steel Co. is participating in the activities, one furnace being in operation now, with practically no iron in the yards.

Intimation is noted of another advance in pig iron before the close of the month. Many of the melters of iron have business on hand or in sight which will warrant an active operation of plants indefinitely. One or two have recently purchased again, paying a little more for the product than 60 days ago. Pressure-pipe production is to lag but little through the winter. Soil-pipe production, together with fittings, require more iron now than for some time. Other iron-using plants are participating in the general activity.

The pig-iron market activity is reflected in other directions. The steel mart in the Birmingham district is doing well; finishing mills, fabricating plants, welding shops and other concerns are well supplied with orders and are producing almost to capacity and shipping as quickly as transportation facilities can be arranged. The embargoes on railroads in Florida are still interfering with some of the activity in this section. Demand for structural steel, as well as other shapes, is coming from other sections, as well as from the immediate district. Steel production is at the highest point in several months. The four open-hearth furnaces of the Tennessee



Coal, Iron & Railroad Co. at Fairfield are using much old material. Steel prices are holding firmly and unfilled tonnages in various shapes are growing greater every week. Many orders for rail, railroad accessories and cars are being placed, all of the transportation lines of this section of the country giving large portions of their business to manufacturers here, the Steel Corporation subsidiary being well supplied with business.

The cast-iron pipe trade is very active, with production and shipments up to within the peak of a few weeks ago. The statement is made that winter buying has been very satisfactory, that there will be need for steady production and that no accumulation is looked for.

Many of the smaller consumers of iron are working to capacity, buying a carlot of iron at a time and paying from 50 cents to \$1 per ton premium, but getting in this manner their needs for a week ahead. One of the larger iron-making companies is making estimates on additional production.

The activities in iron and steel and in cast iron pipe are also reflected in the coal and coke markets, all mining companies having orders calling for maximum output. Alabama mines are being placed on six days a week operation where labor will give the effort. Some corporations note that with six days they have not so far been able to get much more coal than from their four days' operations. The railroads have asked for deliveries around 50 per cent more than three weeks ago and the domestic coal demand has taken on an impetus which calls for large production.

Coke demand is greater than production. Commercial by-product coke is being shipped out as quickly as it can be loaded. A rush order, by rail, of 12 cars was started the past week for the East. According to Russell Hunt, Southern sales manager of the Sloss-Sheffield Steel & Iron Co., prepared by-product coke is commonly known now as manufactured anthracite and is being accepted as fuel where the hard coal heretofore obtained. He asserts also that a number of people from the North, moving to the South, acquainted with the use of coke, are beginning to demand coke as fuel, and this trade is promising. The middle West and the Northwest have placed orders here for coke recently and the product is going out in all directions. The Alabama By-Products Corporation, in addition to its by-product plant at Tarrant City, has started up its beehive ovens at Bradford, in the northern part of Jefferson county, and is preparing others. Other beehive ovens of the district are to be started up. The Semet-Solvay by-product plant at Ensley is going to capacity, 120 ovens, the coke finding a ready market. Coke prices are up to \$6 and \$6.50, with rush orders commanding 50 cents additional.

The scrap iron and steel market in this district is showing improvement also and the melt of old material is greater now than at any time this year. The quotations have advanced but little recently. Heavy melting steel, which is being used in quantity, is still quoted at \$13. Intimation is given that a complete change in the price list is set for this week. Dealers have much old material to deliver and no long-time contracts are being taken on.

#### PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$21.00 to \$21.50; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$21.50 to \$22.00; iron of 2.75 to 3.25 per cent silicon, \$22.00 to \$22.50; iron of 3.25 to 3.75 per cent silicon, \$22.50 to \$23.00; iron of 3.75 to 4.25 per cent silicon, \$23.00 to \$23.50; charcoal iron, f. o. b. furnaces, \$30.00 to \$32.00.

#### OLD MATERIAL.

Old steel axles .....	\$18.00 to \$20.00
Old iron axles .....	17.00 to 18.00
Old steel rails .....	13.00 to 14.00
Heavy melting steel .....	13.00 to 14.00
No. 1 cast .....	16.00 to 17.00
Stove plate .....	13.00 to 14.00
No. 1 railroad wrought .....	12.00 to 13.00
Old car wheels .....	15.00 to 16.00
Old tramcar wheels .....	16.00 to 17.00
Machine shop turnings .....	7.00 to 8.00
Cast-iron borings .....	7.00 to 8.00
Cast-iron borings (chem.) .....	15.00 to 16.00

## RAILROADS

### IMPORTANT ELECTRIFICATION CONTRACT.

#### Pennsylvania Railroad Takes First Step To Use New Power on Baltimore-Washington Line.

Announcement was made last week in Philadelphia that the Pennsylvania Railroad Co. will immediately undertake the electrification of its Maryland Division from Philadelphia southward to Wilmington, Del., 27 miles. Some time ago it was announced that the company contemplated to electrify its line to Baltimore and Washington, and this is the first announcement of construction in conformity with that plan.

A contract has been awarded to the Vane Construction Company of Philadelphia to put under ground all of the company's telephone, telegraph and signal wires between Philadelphia and Wilmington preliminary to the actual installation of electric train service between the two cities. After this work is done steel poles and copper conductors will be erected along the line to carry the overhead work necessary for electric operation.

There will be six conduits or ducts laid on one side of the right of way to contain the wires, which will be enclosed in lead cables as are telephone wires in conduits laid in cities. Spaced 500 feet apart will be manholes for quick access to the wires for repairs. Actual work for placing the train poles and wires is not expected to begin before next spring, when the present contract is completed.

#### Railroads Testing Radio Telegraph.

Extensive tests with the radio are being conducted by the railroads. So far their attention, according to a report submitted at the annual convention of the Telegraph and Telephone Section of the American Railway Association last week in New Orleans, has been directed principally toward the development of a wireless telephone that will bring both ends of freight and passenger trains into communication, and also to a means of enabling railroad-owned tugboats and other harbor craft to keep in communication with central offices without making it necessary for the boats to dock each time that communication is necessary. Practical tests in the use of radio have already been made on the electrified section of several roads with success, but the tests are being continued to see how the system works under varying conditions. One of the middle Western railway systems is now using radio equipment on five car ferries for lake transportation. For communication with these ferries, radio stations are operated at Frankfort and Manistique, Mich., and Manitowoc, Wis.

#### A Study of the Southern Railway Co.

In a large, illustrated book of 61 pages, Case, Pomeroy & Co., Inc., 60 Beaver street, New York, have published a study of the investment value of the common stock of the Southern Railway Company. It is stated at the outset that this incorporated firm was organized in 1916 to operate as a private-investment organization, and that they are not dealers or brokers and do not offer investment service. Jeremiah Milbank is chairman; Walter S. Case, president; Theodore Pomeroy and Frederick E. Voegelin, vice-presidents, and Harry A. Richards, secretary and treasurer. The narrative gives comprehensive information concerning the Southern Railway and the territory which it serves, and it is beautifully illustrated. At the back of the book are tables of data as to results of operation, etc.

## KANSAS CITY SOUTHERN IMPROVEMENTS. New Transportation Yard and Kindred Facilities at Shreveport, La.

A. M. Calhoun, vice-president of the Kansas City Southern Railway Co., Kansas City, Mo., write the MANUFACTURERS RECORD relative to extensive improvements at Shreveport, La., which are now practically completed, as follows:

New 105-foot turntable electric drive replacing an 80-foot table, the new table being made by the Bethlehem Steel Co. and installed by the railroad company's forces. New concrete wash-off platform, 18 by 91 feet, for one track, with sewer connections, and with provision for extension, when needed, to three more tracks.

A new transportation yard is being completed with a capacity of 900 cars. This yard has a maximum width of 19 tracks, receiving tracks being about 5000 feet long and the classification tracks averaging 40 car lengths. In connection with this yard 370,000 cubic yards of excavation were moved, which included a revision of main line to a five-tenths of 1 per cent compensated grade, the new yard being on a similar grade. This grade revision involved the raising of a 488-foot ballasted deck trestle about eight feet, with later replacement of same with three 75-foot deck-plate girders on concrete masonry, the grading being done by the List Construction Co. The municipality of Shreveport entered into a contract with the railway company to utilize the railway embankment as a dam for an impounding basin to provide a future water supply for the city. The masonry for this bridge was installed by the municipality, with a spillway between the piers and the abutments. This will, it is stated, afford the city a new water supply of excellent quality ample for many years.

A new 50-foot 150-ton track scale manufactured by the Fairbanks-Morse Co. was installed in the new transportation yard. An extension of 39 by 55 feet was made to the two-story office and store building and a 39 by 84-foot concrete platform at the shops was completed.

A grain elevator of 200,000 bushels capacity was recently finished by the Shreveport Grain & Elevator Co. and the railway company built about 3000 feet of trackage to serve it. The company's forces also installed an interlocking plant at the crossing of the Texas & Pacific Railway at Cedar Grove, just south of Shreveport, and in addition to that there is also under way at Shreveport work as follows:

A 250-kilowatt, 230 direct-current generator direct connected to simple releasing type Corliss engine is being installed in the power house, the generator being furnished by the Ridgway Dynamo & Engine Co., the railroad company's forces making the installation. A locomotive inspection pit 90 feet long under a 100-foot roof on a single track, with provision for double track, is also being constructed.

A new source of water supply is proposed and partially completed for the railroad terminal facilities, the company having a perpetual right to obtain water from the city reservoir. The water is to be piped 9000 feet to the shops, the pumping unit to consist of two 25-horsepower squirrel-cage motors direct connected to two 500-gallon horizontal centrifugal pumps with remote control attachments.

The construction of  $2\frac{1}{4}$  miles of trackage to serve the Douglas Island industrial district is nearing completion. This work involved building a bridge over Cross Bayou with two 137-foot deck trusses, one 100-foot through truss and short pile approaches. Grading was done by the List Construction Co. and the bridge work by the Topeka Bridge & Construction Company.

At North Shreveport two highway grade separation projects are in progress with company's forces, this work being necessary because of the routing of a main highway through

a section which is being developed as a new residence and industrial subdivision.

A new two-story brickyard office 28 by 53 feet in area is also being built by company forces in connection with the new yard.

At Leesville, La., the company is beginning the installation of a new 105-foot electric-drive turntable similar to the one at Shreveport, and three stalls are also being added to the locomotive roundhouse.

## Increased Use of Trucks and Buses by Railroad Companies.

A survey just completed by the motortruck department of the National Automobile Chamber of Commerce shows that there are now 51 steam railroads using motortrucks to handle freight, although a year ago only 33 roads were using them. Besides, there are 20 steam railroads or subsidiaries thereof that are using at least 219 motorbuses for passengers; a year ago there were scarcely any buses so employed. Thirty of the railroads which are using motortrucks are doing so under contracts with terminal companies—some at Cincinnati and some at St. Louis—for interchanging less than carload lot freight, and there are 13 other railroads employing trucks at other terminals. Besides, there are 22 railroads which furnish truck service at different points, eight of them replacing trains which carried package freight and ten for the purpose of furnishing store-door delivery to the public. Of those railroads which use motorbuses, ten are operating them on routes parallel to some of their rail lines and five have substituted bus service for trains on branch routes. Two are using buses as traffic feeders in territory not formerly served by railroad. Three have ticket arrangements with independent bus operators, some of them for service in place of local trains discontinued. More than 30 railroads are considering plans to use either trucks for freight or buses for passengers, or both.

There are nearly 500 rail motor coaches used on 190 steam and electric railroads, and 26 of these lines have ordered additional units to make additions to service. There are also 18 other railroads which are investigating the subject of rail motor coaches with a view to adopting them.

## Freight Traffic Now a Record-Breaker.

Loading of revenue freight for the week ended October 17 totaled 1,106,114 cars, the thirteenth week so far this year that loadings have been in excess of 1,000,000 cars, according to reports filed by the carriers with the American Railway Association. Compared with the preceding week this was an increase of 15 cars, but it showed an increase of 3814 cars over the same week last year. Loading from January 1 until October 17, inclusive, has been the greatest for any corresponding period on record, amounting to 41,171,601 cars. This exceeds by 343,307 cars, or only .8 per cent, the estimate made early in the spring by the Car Service Division of the Association as to what the freight traffic would be for the first 42 weeks this year, while it also exceeds by 2,200,654 cars, or 5.6 per cent, the total for the corresponding period last year. Compared with the corresponding period in 1923, which had marked the previous high record, the total for 1925 was an increase of 629,553 cars, or 1.6 per cent.

## H. O. Hartzell Promoted in B. & O.

H. O. Hartzell, manager of the commercial development department of the Baltimore & Ohio Railroad, has been promoted as of November 1 to be executive assistant to Archibald Fries, vice-president in charge of traffic and commercial development, with headquarters at Baltimore.



## SHORT ROUTE TO FLORIDA WEST COAST. Atlantic Coast Line Announces Plan to Build Monticello-Perry Link.

Just as soon as it can obtain permission from the Interstate Commerce Commission to build its long-contemplated connection from Monticello to Perry, Fla., the Atlantic Coast Line will begin construction of that link, according to an official announcement made last Friday in New York. When this short extension is completed the Coast Line will have a short route between the west coast of Florida and the middle West, as well as with all the rest of the western part of the United States. Application for authority will be made to the Commission at once.

H. L. Borden, vice-president and secretary of the railroad company, 71 Broadway, New York city, gave out the announcement, which read as follows:

"The Atlantic Coast Line Railroad has completed securing the right of way from the end of its Thomasville (Ga.) branch to Perry, Fla., a distance of 40 miles, which will open a new through line from Tampa and other west coast Florida cities to the middle West and Northwest via Albany and Atlanta and, with the Louisville & Nashville, via Montgomery and Chattanooga. The contract for its construction will be let as soon as authority is granted by the Interstate Commerce Commission."

Monticello is now the southern terminus of the branch mentioned and is 25 miles from Thomasville. It is estimated that the cost of building the extension will be about \$30,000 per mile. When it is built it will no longer be necessary for Western passenger traffic to and from the west coast of Florida to go through Jacksonville; a long ride to and from that city will be avoided.

## New Equipment and Rails.

St. Louis-San Francisco Railway has ordered \$10,000,000 worth of equipment, including 4000 freight and 14 passenger cars, as follows: 2000 box cars from the American Car & Foundry Co., 500 box cars from the General American Car Co., 500 automobile cars from the Mount Vernon Car & Manufacturing Co., 500 automobile cars from the Pullman Car & Manufacturing Co., 500 gondola cars from the Tennessee Coal, Iron & Railroad Co., and 14 passenger cars from the American Car & Foundry Co. An order for 15 large Mikado type freight engines and 10 Mountain type passenger engines will also be awarded soon, and in addition to the car orders the railroad will receive 25 express refrigerator cars from the General American Car Co. by January 1.

"This large equipment order is evidence of the steady growth and productivity of the territory served by the Frisco system," said President J. M. Kurn on the announcement of the contracts. "We realize fully that this expansion has only started and we are prepared to fulfill every demand for equipment and service. All equipment included in this order is of the very latest type, and the automobile cars will be built in accordance with the requirements and specifications of the automobile industry. With this equipment the Frisco will have per mile of railroad as many cars of the very highest type as any railroad west of the Mississippi River."

Chesapeake & Ohio Railway has ordered three all-steel postal cars to cost \$27,955 each from the Bethlehem Shipbuilding Corporation, Ltd., Wilmington, Del., delivery to be made in June next. These cars will have Commonwealth cast-steel trucks.

Central of Georgia Railway, according to a report from Atlanta quoting President L. A. Downs, will purchase for immediate delivery 5 Mountain type passenger locomotives, 1000 ventilated box cars and \$645,000 worth of steel rails.

The box cars are to be built by the Tennessee Coal, Iron & Railroad Co. and the engines by the Baldwin Locomotive Works. It is also reported that the railway has ordered four more locomotives from the Lima Locomotive Works.

Norfolk & Western Railway, it is reported, will build 10 Mountain type passenger locomotives in its own shops at Roanoke, Va., and it will purchase 43 steel passenger-train cars.

Pennsylvania Railroad will order 160,000 tons of rails for next year. Estimated cost, \$6,800,000.

## Atlantic Coast Line Rebuilding a Florida Division for Heavy Traffic.

Jacksonville, October 31—[Special.]—The Atlantic Coast Line, says the Florida Development Board, has well under way one of the most important railroad construction projects. This is the rebuilding of 140 miles of main line between High Springs and Lakeland to handle heavier trains at higher speeds. Because of the enormous development under way in the southern part of Florida, the Waycross-High Springs-Dunnellon-Lakeland route has become of vital importance, being a direct line down the west coast. Besides, the Dunnellon-Lakeland section will be the principal link in the proposed Perry-Monticello cut-off. The rails of 85 pounds section, laid only a few years ago, are being replaced with 100-pound rails, and the rails removed are being used to replace lighter rail elsewhere, notably on the 40 miles between Palatka and Rochelle.

## Freight Terminal Opened at Knoxville.

Knoxville, Tenn.—The new John Sevier freight terminal of the Southern Railway, six miles east of Knoxville, and the four-mile double-track belt line, connecting it with the Middlesboro line at Beverly, on which work was begun in July, 1924, were placed in service on October 26. The terminal includes a classification yard, with 50 miles of track and capacity for 3500 cars, modern engine-handling facilities—including a 35-stall roundhouse—a transfer station for handling less than carload freight moving through Knoxville, refrigeration station for icing perishable products, and pens in which livestock can be rested, fed and watered. The transfer station will take rank with the large stations at Inman Yards, Ga.; Spencer, N. C., and Hayne, S. C., and will greatly facilitate the handling of package freight through the Knoxville gateway. The movement of freight trains will be expedited by use of the belt line, thus avoiding the industrial district of Knoxville.

## Freight Rates and Cotton Prices.

Quality and grade of cotton, together with other general elements of supply and demand, and not freight rates, are the important factors in establishing the prices paid to growers of cotton, according to a study just completed by the Bureau of Railway Economics, Washington, D. C., as to the production, distribution and consumption of cotton in the United States and the relationship between the prices paid to the cotton growers and freight rates to representative consuming centers. Because less than half of the cotton produced in the United States is consumed in this country, the study finds, the price paid cotton producers here is greatly influenced by the demand in foreign countries, where the larger part of the American crop is marketed.

Concordia Parish Police Jury, Vidalia, La., will probably award contract in December for the construction of 25 miles of gravel road, for which a bond issue of \$150,000 has been sold.

## GOOD ROADS AND STREETS

### New Officials for American Road Builders' Association.

At a meeting of the nominating committee held in New York city, Henry G. Shirley, chairman of the Virginia State Highway Commission, was unanimously chosen as president for 1926-1927 of the American Road Builders' Association, the oldest and foremost organization identified with the good-roads program in this country and the sponsor of the great good-roads convention and exposition to be held in Chicago January 11-15, next.

Nomination to this important post is equivalent to election, as the recommendations of the nominating committee have been endorsed without exception throughout the 25 years of the association's existence. The election of officers will be by ballot of the membership between now and the Chicago convention, where the vote will be canvassed and the result announced. The new officers will be installed at the New York meeting of the association next May.

In addition to Mr. Shirley for president, the nominating committee, of which Col. R. Keith Compton, director of public works at Richmond, Va., is chairman, has nominated the following for the four vice-presidencies to be filled at the Chicago meeting: W. R. Smith, president, Lane Construction Corporation, Meriden, Conn.; S. T. Henry, director, Pan-American Confederation for Highway Improvement, Spruce Pine, N. C.; S. F. Beatty, Austin-Western Road Machinery Co., Chicago, Ill., and Samuel Hill, honorary life president, Washington Good Roads Association, Seattle, Wash.

James H. MacDonald, former state highway commissioner of Connecticut and a road expert residing at New Haven, will continue as treasurer. Charles M. Upham, state highway engineer, Raleigh, N. C., is business director and convention manager of the association, and Miss Ethel A. Birchland of New York city is secretary.

The following men have been nominated for the seven directorships to be filled at the Chicago meeting: F. A. Reimer, consulting highway engineer, East Orange, N. J.; W. H. Kershaw, the Texas Company, New York city; C. M. Pinckney, chief engineer, Bureau of Highways, Manhattan Borough, New York city; Col. R. Keith Compton, director of public works, Richmond, Va.; C. M. Upham, state highway engineer, Raleigh, N. C.; William Ogden, Lakewood Engineering Co., Cleveland, Ohio, and Frank Terrace, president, Washington Good Roads Association, Orillia, Wash.

Mr. Shirley, who will become president, has long been identified with America's highway program and is widely known for his achievements in the construction field. After graduating in engineering at the Virginia Military Institute he became roads engineer for Baltimore county, Maryland, and then highway commissioner of that state. At one time he was secretary of the American Highway Industries Association and president of the American Association of State Highway Officials. During the World War he was a member of one of the committees assisting the Government with war-time highway matters.

### Wants Bids on 53 Miles.

Baton Rouge, La.—Bids will be received by the Louisiana Highway Commission until November 24 for the construction of sections C and E of the Hammond-New Orleans highway, the former to cover 8.809 miles and the latter 13.033 miles. Section C is located in Tangipahoa parish and section E in St. John the Baptist parish. Bids may be submitted on either section separately or on the project as a whole. Proposals will be received also for the construction of two

projects covering a total of approximately 30 miles of gravel-surfaced roads. On November 12 the commission will receive bids for .909 mile in Lafayette parish, on the Lafayette-Carenero highway, and on November 17 for 29.173 miles in Red River parish, on the Shreveport-Natchitoches highway. Plans and specifications may be obtained from the office of the commission.

### To Vote on \$1,500,000 of Bonds.

Perry, Fla.—An election on a bond issue of \$1,500,000 for the construction of roads will soon be called by the Taylor County Board of Commissioners. It is planned to build the proposed new roads to adjoining county lines in order to connect with hard-surfaced roads in these counties.

### Bids Invited on Underpass.

Atlanta, Ga.—Bids will be received until November 20 at the office of W. P. Price, city purchasing agent, Atlanta, for the construction of the proposed Bell-Hill street underpass beneath the tracks of the Georgia Railroad and the Southern Railway. Drawings and specifications may be obtained from Mr. Price.

### Dade County to Sell \$800,000 of Bonds.

Miami, Fla.—Arrangements are being made by the Dade County Commissioners to sell \$800,000 of bonds, the remaining portion of an issue of \$1,670,000 authorized by vote of taxpayers of the county more than a year ago. Funds from the proposed sale will be used to complete all road and bridge projects now under way or contemplated this year, including \$147,000 for the West Dixie highway, \$300,000 for the causeway and \$253,000 for a general county highway fund. Included also will be \$100,000 for building an armory.

### Dallas County Considering \$6,000,000 Bond Issue.

Dallas, Texas—According to an announcement by J. W. Slaughter, county commissioner, a road bond issue of from \$1,000,000 to \$6,000,000 will be submitted to voters of Dallas county about January 1. Improvements to be financed by the proposed issue will include the county's part of the new Dallas-Fort Worth road, improvement of belt line roads, resurfacing and probable widening of the West Dallas pike, improvement of roads to Irving, Carrollton, Kaufman and Hutchins, and graveling cut-off roads in the county. The exact amount of the bond issue cannot be determined, it is said, until estimates on the road to Fort Worth have been made.

### To Build 42 Miles of Roads.

Sanford, Fla.—Bids will be received by the Seminole County Board of Commissioners, at its office in this city, until November 16 for grading, paving and building bridges and culverts on 42 miles of roads. Principal items of construction will include 93,450 cubic yards of grading, 256,800 cubic yards of hydraulic fill, 80,000 cubic yards of drag-line fill, 300,913 square yards of macadam base, 310,416 square yards of surface treatment, 15,000 square yards of sheet asphalt, 664 lineal feet of creosoted trestle bridges, two concrete bridges of 24-foot span, 2 concrete bridges of 16-foot span and 9 concrete culverts.

Copies of plans and specifications are on file at the office of V. E. Douglas, Clerk of the Circuit Court, and at the office of Fred T. Williams, engineer, both of Sanford.



### Gas-Electric Double-Deck Coaches for Atlanta.

Fifteen double-deck gas-electric coaches have been purchased from the Fageol Motors Company by the Atlanta Coach Co., owned and controlled by the Georgia Railway & Power Co., Atlanta. The coaches seat 58 passengers. The stairway leading to the upper deck is enclosed, and there is



ONE OF THE NEW COACHES.

a canopy top for the protection of passengers from sun and rain. The coaches are designed for one-man operation, but have a rear door so that a second man may be used if desired. Both doors are controlled by door engines.

The coaches are painted flamingo red on the lower half and white on the upper half. The interior is finished in mahogany. They have Westinghouse air brakes. They are



AN INTERIOR VIEW.

to be used in furnishing service from the center of the city to a rapidly growing section, and will not be operated over streets with street car tracks except for a few blocks.

The coaches have a wheel base of 230 inches, and are equipped with a Hall Scott motor using a Zenith carburetor, Delco ignition, Exide battery and Timken axles. The electric drive is furnished by the General Electric Co. and consists of a D. C. generator, Model 36-A-71, direct connected through a hollow shaft to the gasoline engine. Two Model 2 36-A-63 motors connect through a worm drive to the rear axles.

### Will Vote on \$750,000 of Road Bonds.

Augusta, Ga.—An election has been called for November 19 by the Richmond County Board of Commissioners of Roads and Revenue on a bond issue of \$750,000 for construction in the county. Roads planned for improvement include the Sand Bar Ferry road from East Boundary to the Sand Bar Ferry bridge, Louisville road from Augusta city limits to county line at Brier Creek, Hephzibah road from Hephzibah to county line at Story's Mill, Milledgeville road from Augusta city limits to Columbia county line, and Washington road from Augusta city limits to Columbia county line.

### \$1,000,000 Memorial Bridge Dedicated.

Petersburg, Va.—In a celebration featured by elaborate ceremonies and participated in by representatives of all sections of Virginia, Petersburg's \$1,000,000 memorial bridge was dedicated last week. The structure was made possible by the active co-operation of municipal and civic organizations of Petersburg, in conjunction with other interests, including the Norfolk & Western Railway, Atlantic Coast Line Railway, Virginia Railway & Power Co., which is now the Virginia Electric & Power Co., and the State Highway Commission.

The bridge spans the Appomattox River and connects the Petersburg-Richmond highway with the city of Petersburg. It is an impressive structure of ornamental architecture, of reinforced concrete and steel, extending 1856 feet from the highway nearly to the junction of 2d and Bollingbrook streets, with a ramp 650 feet long running from the center of the viaduct to Pocahontas street. It is one of the largest concrete structures in the South and one of the finest examples of its type in the country. Of the total expenditure, including the viaduct and ramp, terminal building of the Virginia Electric & Power Co., and approaches to the structure, it is said the city of Petersburg was involved only to the extent of \$260,000.

### Kentucky Wants Bids.

Frankfort, Ky.—Sealed proposals will be received by the State Highway Commission at the office of E. N. Todd, state highway engineer, until November 9 for the construction of .911 mile of the Paintsville-Prestonsburg road in Floyd county, from the south end of the proposed bridge over Levisa Fork at Cliff to the corporate limits at Prestonburg. Bids will be received also at the same time for building two miles of the Barboursville-Williamsburg road in Knox county, construction to consist of waterbound macadam on napped sandstone base, waterbound macadam only, or bituminous macadam on napped sandstone base.

The commission will receive bids on the same date for the construction of the proposed bridge over Levisa Fork of Big Sandy River in Floyd county, the structure to consist of three 190-foot and one 70-foot steel spans, with a reinforced concrete substructure and a 20-foot roadway of creosoted wood blocks. Instructions to bidders, forms of proposals and specifications may be obtained from the office of the state highway engineer.

### To Grade and Maintain 600 Miles of Streets.

Fort Worth, Texas.—A program has been adopted by the city of Fort Worth for grading and maintenance of more than 600 miles of unimproved streets within the city limits. A new road grader-tractor has been purchased, another outfit hired from the county, and at least five additional graders will be obtained. Purchase of new equipment, it is said, will enable the city to assign a grader to each of the main divisions of the city for continuous maintenance of streets.

### Officers for Highway Research Board.

Announcement is made by Director Charles M. Upham, Highway Research Board of the National Research Council, that Prof. S. S. Steinberg of the University of Maryland has been appointed assistant director of the Board. H. F. Janda, former assistant director, has been designated secretary to research committees.

At an adjourned meeting of the Burke County Commissioners, Waynesboro, Ga., an election was called for November 24 on a bond issue of \$600,000 for the construction of state and Federal-aid roads.

# LUMBER AND BUILDING MATERIALS

## Lumber Production Continues to Increase.

Washington, October 29.—The inference from telegraphic reports received by the National Lumber Manufacturers Association from 363 of the larger softwood mills of the country for the week ended October 24 is that there was a slight increase in national lumber production and a slight falling off in shipments and new business. Compared with the same week of 1924 the past week shows a general gain.

The unfilled orders of 241 Southern Pine and West Coast mills at the end of last week amounted to 570,347,721 feet, as against 582,555,454 feet for 233 mills the previous week. The 130 identical Southern Pine mills in the group showed unfilled orders of 270,855,246 feet last week, as against 272,665,491 feet for the week before. For the 111 West Coast mills the unfilled orders were 299,492,475 feet, as against 309,889,963 feet for 103 mills a week earlier.

Altogether the 363 comparably reporting mills had shipments 96 per cent and orders 89 per cent of actual production. For the Southern Pine mills these percentages were, respectively, 107 and 105, and for the West Coast mills 95 and 88.

Of the reporting mills, the 355, with an established normal production for the week of 213,688,182 feet, gave actual production 109 per cent, shipments 104 per cent and orders 97 per cent thereof. The following table compares the national lumber movement as reflected by the reporting mills of seven regional associations for the three weeks indicated:

	Past week	Corresponding week, 1924	Preceding week 1925 (revised)
Mills .....	363	347	353
Production .....	238,670,281	219,541,912	234,428,342
Shipments .....	228,396,138	211,704,545	233,521,623
Orders .....	213,260,339	211,921,526	228,789,136

The following revised figures compare the lumber movement of the seven associations for the first 43 weeks of 1925 with the same period of 1924:

	Production	Shipments	Orders
1925 .....	10,436,596,336	10,326,633,843	10,124,459,664
1924 .....	9,992,559,627	9,926,479,013	9,617,143,920

The Southern Cypress Manufacturers Association of New Orleans, for the week ended October 21, reported from 18 mills a production of 6,010,830 feet, shipments 6,180,000 and orders 6,580,000. In comparison with reports for the previous week when two fewer mills reported this Association showed a substantial increase in production, a considerable increase in shipments and a good gain in new business.

The Southern Pine Association reports from New Orleans that for 130 mills reporting, shipments were 7.09 per cent

above production and orders 4.53 per cent above production and 2.39 per cent below shipments. Of the 116 mills reporting running time, 96 operated full time, 30 of which noted overtime, betokening increased activity. Three mills were shut down and the rest operated from three to five and one-half days.

The North Carolina Pine Association of Norfolk, Va., with reports from six more mills, showed some decrease in production and shipments and a marked decrease in new business.

The hardwood mills of the Northern Hemlock and Hardwood Manufacturers Association reported from 16 mills production as 1,021,000 feet, shipments 3,501,000 and orders 3,827,000.

The Hardwood Manufacturers Institute of Memphis, Tenn., reports from 99 units production as 12,617,460 feet, shipments 17,855,803 and orders 16,560,264. The normal production of these units is 17,830,000 feet.

For the past 18 weeks all hardwood mills reporting to the National Lumber Manufacturers Association give production 293,921,036 feet, shipments 328,835,973 and orders 358,208,588.

## Increase Cement Production to 1,000,000 Barrels.

An addition to be erected immediately at plant No. 2 at Clinchfield, Ga., by the Clinchfield Portland Cement Co. of Kingsport, Tenn., will bring the production of that plant to 1,000,000 barrels a year. The company advises the MANUFACTURERS RECORD that this addition will consist of the installation of a third unit, to include an additional rotary kiln, 175 feet in length by 10 feet in diameter, with appurtenances. Work will begin at once and it is hoped to have the additional kiln in operation by April 1, 1926.

## Forestry Association Elects Officers.

Columbia, S. C.—At a recent meeting of the South Carolina Forestry Association here officers were elected as follows: C. F. Prettyman, Summerville, president; Paul Sanders, Ritter, vice-president, and James H. Hammond, Columbia, secretary. With minor modifications, the association went on record as endorsing the Spivey-Sheppard-Boyd bill now pending in the state legislature, which provides for the appointment of a state commission of forestry, to consist of five members to be appointed by the Governor.

## SOFTWOOD LUMBER MOVEMENT FOR 43 WEEKS, AND FOR WEEK ENDING OCTOBER 24.

	Production		Shipments		Orders	
	1925	1924	1925	1924	1925	1924
Southern Pine Association:						
Total .....	3,330,094,718	3,392,179,029	3,286,730,981	3,397,042,250	3,287,156,731	3,322,653,002
Week (130 mills) .....	70,680,261	67,756,300	75,689,538	76,261,150	73,879,293	80,717,700
West Coast Lumbermen's Association:						
Total .....	4,299,625,951	4,012,351,230	4,475,325,663	4,157,576,258	4,411,703,331	4,014,364,236
Week (111 mills) .....	102,952,863	102,679,916	98,076,881	88,552,605	90,800,623	85,577,101
Western Pine Manufacturers Ass'n:						
Total .....	1,519,716,000	1,377,469,000	1,393,301,000	1,285,577,000	1,363,803,000	1,255,310,000
Week (37 mills) .....	35,127,000	24,562,000	27,352,000	21,681,000	22,620,000	20,850,000
California Redwood Association:						
Total .....	322,916,000	367,484,000	300,534,000	294,987,000	301,124,000	293,166,000
Week (14 mills) .....	7,450,000	8,544,000	6,129,000	7,343,000	7,270,000	8,363,000
North Carolina Pine Association:						
Total .....	386,142,467	322,092,768	366,901,299	323,988,105	305,231,602	289,165,682
Week (45 mills) .....	10,764,757	7,987,296	8,618,919	8,069,790	6,793,423	8,270,725
Northern Hemlock and Hardwood (Softwood) total:						
Total .....	144,124,000	121,507,000	109,489,000	98,131,000	89,175,000	76,754,000
Week (16 mills) .....	2,642,000	1,251,000	2,289,000	939,000	1,375,000	610,000
Northern Pine Manufacturers Ass'n:						
Total .....	433,977,200	399,476,600	394,351,900	369,177,400	366,266,000	365,731,000
Week (9 mills) .....	9,053,400	6,761,400	10,240,800	8,858,000	10,522,000	7,533,000
General total for 43 weeks .....	10,436,596,336	9,992,559,627	10,326,633,843	9,926,479,013	10,124,459,664	9,617,143,920
California White and Sugar Pine:						
Total .....	*1,095,293,000	1,006,773,000	970,255,000	723,585,000	822,607,000	.....
Week (4 mills) .....	4,538,000	17,265,000	3,526,000	14,518,000	3,899,000	11,901,000
General total for week .....	238,670,281	219,541,912	228,396,138	211,704,545	213,260,339	211,921,526

\*Revised figures not included in general totals. Represents about 78 per cent total production California pine region.



## TEXTILE

### Red River Cotton Mills Incorporate.

Rock Hill, S. C.—Incorporation papers have been secured from the Secretary of State for the Red River Cotton Mills Corporation, capitalized at \$200,000. York Wilson of this city is president and treasurer; Dan Heyward, vice-president, and C. P. Simpson, secretary. Mr. Wilson and associates recently acquired Carhartt Mill No. 2 on the Catawba River and are installing new machinery, besides renovating present equipment. The company has awarded contract to J. Archie Willis & Co. of Greenville for the erection of 23 dwellings for operatives.

### Garment Factory to Double Capacity.

The present garment factory at East Point, Ga., of the Lullwater Manufacturing Co. is being doubled, according to a telegram to the MANUFACTURERS RECORD from the company. Machines have been purchased from the Singer Sewing Machine Co., New York, and fabrics for the production of garments will be supplied by the company's cotton mills at East Point and Thomson, Ga.

Every operation in the production of garments at the Lullwater Mills is under one management. The plant employs about 500 operatives.

### Woolen Mills Operating at Winchester.

Winchester, Va.—All departments of the plant here recently purchased by the Arthur G. Jones Woolen Mills Corporation are operating with full forces, except the weaving and finishing departments, and these are expected to be in operation within a few days. The plant will employ about 55 men in its day crews and 50 in its night force.

A new building, to be modernly equipped, will be erected near the present plant and construction work is expected to be started soon.

### Office Building for Processing Company.

Belmont, N. C.—Plans have been made by the Belmont Processing Co. for the erection of a new office building here, and Lockwood, Greene & Co., engineers, of Charlotte, N. C., and Boston, Mass., have been commissioned to render complete engineering service in the erection of the structure. The Belmont Company was incorporated a few months ago with a capital stock of \$2,000,000 by D. E. Rhyne, Lincolnton; A. C. Lineberger, Belmont, and associates.

### Purchase of Cotton Mills.

Hampton, Ga.—Several cotton-mill properties located here have been purchased by O. P. and C. W. Ensign of Forsyth, Ga., proprietors of the Ensign Cotton Mills at Forsyth. The purchase includes a mill of 11,500 spindles, one of 3600 spindles, knitting mill and bleachery, all of which are in operation. The purchasers will take charge November 1.

### Yarn Company Bids in Marshville Plant.

Marshville, N. C.—Property and plant near here of the Marshville Manufacturing Co. have been bid in at public sale by the Lowell Yarn Co., New York, the bid to remain open 10 days. The plant, said to be valued at \$150,000, manufactures automobile tire fabrics. It is located on a site of approximately 100 acres.

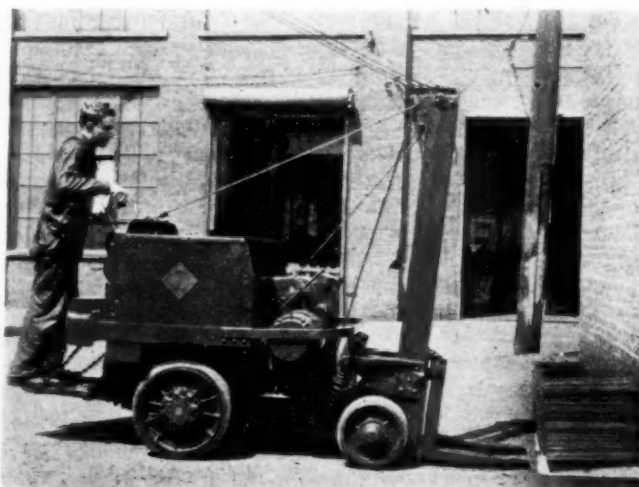
The Gibbons Knitting Mills, St. Louis, Mo., will increase their capital stock from \$50,000 to \$81,000.

## MECHANICAL

### Electric Tractor for Industrial Use.

An electric industrial unit for the handling of tinplate in mills and warehouses is pictured herewith. While designed primarily for the sheet steel and tinplate industries, its field of usefulness has been extended to also handle radiators, bales, bags, barrels, heat-treating boxes, export cases, electric and gas motors, pianos, tobacco cases, newsprint, roofing paper, rolls of rubber fabric or any other oddly shaped bulky articles.

This machine, known as Type ER tractor, is manufactured by the Elwell-Parker Electric Co., Cleveland, Ohio, and is driven by electric motor, receiving power from a battery



TRACTOR TAKING ON A LOAD.

which it carries. All four wheels steer so that the machine can be turned about on congested floors, and all wheel and motor bearings are either ball or roller type; all of the company's safety features are included. The capacity of the machine is from 3000 to 5000 pounds.

The illustration shows one of these tractors just about to push its forks under a pile of tinplate that is to be moved. As the tinplate is lifted up the face of the uprights they can be tilted backward to an angle of 40 degrees so as to carry the tin in an inclined position, which allows the sheets to settle themselves in close alignment as the tractor is moved from place to place. The vertical and the rocking motions of the forks are obtained by means of a double-drum electric hoist like that used on the company's CK crane; the upper drum rocks the frame, while the lower one elevates the load.

The cable of the upper drum pulls the uprights toward the operator against the action of two heavy springs, which, with the cable, form a cushioned rest for the load. When the cable is fully paid out the uprights pitch forward slightly, putting the tips of the forks down to be inserted beneath a load. The forks may be raised to any desired height for loading or carrying.

### Bids for \$250,000 Bank Building.

Birmingham, Ala.—Bids will be received until November 16 for the erection of the proposed Federal Reserve Bank building here to cost about \$250,000 without equipment. The structure will be 110 by 50 feet, three stories, of reinforced concrete and stone, with concrete foundation, marble, wood, rubber and linoleum floors. All vaults will be included in the general contract. Warren, Knight & Davis of this city are the architects.

# CONSTRUCTION DEPARTMENT

## EXPLANATORY

Additional information is published about all enterprises mentioned in this department as soon as such data can be obtained.  
An asterisk (\*) following an item indicates that the enterprise has been reported in a preceding issue.

## DAILY BULLETIN

The Daily Bulletin is published every business day to enable its subscribers to follow up promptly the industrial, commercial, railroad, financial, building and general business development of the South and Southwest. To machinery manufacturers and dealers, contractors, engineers, and others who require daily information of every new enterprise organized and details about important additions to enterprises already established, the Daily Bulletin is invaluable. Subscription price, \$20.00 a year.

### Bridges, Culverts and Viaducts

#### Proposed Construction

Ark., Van Buren—Crawford County Comms. plan building bridge across Frog Bayou on Van Buren-Alma road, concrete arches, etc.; W. W. Mitchell, Dist. Highway Engr., Fort Smith.

Fla., Ocala—Marion County Comms. plan 3 bridges across Oklawaha River and one across Withlacoochee River.\*

Fla., Palatka—Putnam County Bond Trustees for Special Road and Bridge Dist. No. 7, J. W. Hart, Sec., receive bids Nov. 24 for 4200 ft. reinforced concrete bridge, steel lift span and earth filled causeway for Putnam County Memorial Bridge across St. John's River at Palatka; plans on file.\*

Fla., Panama City—State Road Dept. will build 2 bridges. See Roads, Streets, Paving.

Fla., Punta Gorda—Charlotte County Comms., R. C. Blount, Clk., receives bids about Nov. 15 for bridge over Myakka River, 3000-ft. creosoted timber trestle approach, 95-ft. steel draw, cost about \$130,000; C. W. Creekbaum, County Engr.\*

Fla., Tampa—Hillsborough County Comms. received low bid from E. W. Parker, Tampa, for 3 bridges on Bayshore road: Palm, Alafia and Little Manatee Rivers.\*

Fla., Tampa—Lloyd-Skinner Development Co., 108 E. Lafayette St., plans erecting ornamental bridge and arch on West Shore Blvd. near Belmar.

Kentucky—See Roads, Streets, Paving.

La., Clayton—Louisiana Highway Comm., Baton Rouge, approved construction steel bridge across Tensas River at Clayton.

La., New Orleans—Public Belt Comm. let contract to Ralph Modjeski Engineering Co., 220 S. Michigan Ave., Chicago, Ill., for engineering work for Mississippi River Bridge, at New Orleans, cost \$15,000,000; Thomas H. Cunningham, Chmn. of Bridge Committee.

Md., Sparrows Point (Branch Baltimore)—Bethlehem Steel Co. plans building bridge across Humphreys Creek.

Miss., Yazoo City—State Highway Comm., Jackson, plans receiving bids soon for bridge between "B" Lake and Eden.

North Carolina—State Highway Comm. will build 2 bridges. See Roads, Streets, Paving.

Okla., Chandler—City plans building viaduct, estimated cost \$25,000; Benham Engineering Co., Conslt. Engrs., 512 Gumbel Bldg., Kansas City, Mo. See Financial News—Bond Issues Proposed.

Tex., Austin—State Highway Dept., Frank V. Lanham, Chmn., plans overpass on M. K. C. T. Ry crossing, on State Highway No. 20, one 37-ft. girder and four 24-ft. girder spans, estimated cost \$15,500; G. G. Wickline, Bridge Engr.; R. J. Hank, State Highway Engr.

Tex., Houston—City, O. F. Holcombe, Mayor, and Harris County, H. L. Washburn, County Auditor, received low bid from Kansas City Bridge Co., 510 Orear-Leslie Bldg., Kansas City, at \$322,000 for bridge across Houston Ship Channel, near 69th St.\*

Tex., Newton—Newton County plans building 2 bridges. See Roads, Streets, Paving.

Tex., San Antonio—See Roads, Streets, Paving.

Tex., Wichita Falls—Wichita County, B. D. Sartin, Judge, receives bids Nov. 23 for bridge across Wichita River, near west end city limits.

W. Va., Huntington—City Comms., W. E. Neal, Mayor, plan building 2 steel bridges at Fifth Ave. over Guyan River and Robey Hollow Bridge, and repairing Third Ave. Bridge over Guyan River; total cost \$301,000.

### Contracts Awarded

Ark., Alma—Crawford County let contract to J. S. Terry, Poteau, Okla., for highway bridge over Flat Rock Creek.

Fla., Tampa—City let contract to Roberts Supply Co., Lima, Ohio, for steel and concrete bridge at Michigan Ave. across Hillsborough River.\*

Mo., Jefferson City—Cole County Court let contract to Louis Bruner, at \$9985, for 4 bridges in Frog Hollow: Heimericks Culvert Nos. 1 and 2; Bemboom Bridge Nos. 3 and 4.

N. C., Danbury—J. M. Kestler & Son have contract at \$30,000 for concrete bridge across creek south of Danbury on Walnut Cove road; also have contract for bridge across creek 2 mi. south of Danbury. Address County Comms.

Tennessee—Dept. of Highways and Public Works, Nashville, let contract to McQuarry Bros. Construction Co., Hopkinsville, Ky., \$9633, to grade underpass under L. & N. R. R. near Hygeia, Springfield; Texas Road Co., Santa Fe Bldg., Dallas, Tex., approaches and rock asphalt surfacing, Academy Ave. Viaduct, Clarksville.

### Canning and Packing Plants

Ark., Gentry—See Land Development.  
Ky., Glasgow—Charles W. Heck, Saint Clair, Tenn., reported interested in establishment of cannery.

### Clayworking Plants

Ga., Bainbridge—Gamble Stockton Co., Columbus, acquired plant of P. T. Rich; will enlarge, install new equipment.

Okla., Tulsa—Acme Brick Co., Mid-Continent Bldg., reported to install brick plant.

W. Va., Charleston—West Virginia Brick Co., 122½ Capitol St., will rebuild plant burned at loss of \$150,000.

### Coal Mines and Coke Ovens

Ky., McCarr—H. T. W. Coal Co., J. W. P. St. Clair, Pres., has 1400 acres under development, daily output 800 tons; Muring & Hicks, Const. Engr., Williamson, W. Va.\*

Mo., Higbee—Monteau Coal Co., A. E. Humphrey, Sec.-Treas., has 300 acres under development, daily output 200 tons; install boilers and flues, gasoline pumps. (See Machinery Wanted—Boilers, etc.; Pumps (Gasoline).\*)

Okla., Henryetta—Coal Creek Co., capital \$10,000, incorporated; Frank Barrow, J. R. Hopkins.

Va., Richmond—Gayton Coal & Land Corp., capital \$100,000, chartered; P. T. Murphy, John B. Swartwout.

### Concrete and Cement Plants

Ark., White Cliffs—The White Cliffs Corp. and the Arkansas Cement Corp., with total capital of \$9,000,000, reported, plans reopening operations of lime deposits, erect cement plant to operate in connection with present plant, which is used for manufacture of whitening and asphalt filler.

Fla., Hialeah—LoForti Brick Co., capital \$300,000, incorporated; Twain Michelsen and Joe LoForti; establish plant to manufacture concrete bricks, daily output 15,000 bricks.

Fla., Hollywood—N. V. Bastin contemplates establishing plant to manufacture cement blocks, brick, tile, etc. (See Machinery Wanted—Concrete Products Machinery and Equipment.)

Georgia—Climchfield Portland Cement Corp., Kingsport, Tenn., will soon let contracts for

installation of third unit at Clinchfield plant No. 2 at Clinchfield, Ga.; will include additional rotary kiln 175 ft. by 10 ft. diam. and appurtenances, increasing capacity of plant to 1,000,000 bbl. per year.

Md., Baltimore—Rex Concrete Products Co., Nicholson Ave., Essex, Md., acquired plant formerly operated by Douglas Concrete Products Co. on Golden Ring Rd. south of Philadelphia Rd.; operate as branch plant.

### Cotton Compress and Gins

Okla., Watonga—Independent Gin Co., capital \$20,000, incorporated; K. C. Holmes, A. E. Goerke.

Tex., Wichita Falls—Kemp City Gin Co., capital \$25,000, incorporated; Frank Kell, City National Bank Bldg.; Frank Boyd.

### Cottonseed-Oil Mills

Tenn., Memphis—Tri-State Operating Co., 60 S. Front St., capital \$150,000, incorporated; C. A. Crawford, John D. Martin.

Tex., Greenville—Greenville Cotton Oil Co., capital \$250,000, incorporated; Paul Plunket, J. T. Craddock.

### Drainage, Dredging and Irrigation

Ark., Osceola—Comms. of Sub-drainage No. 1 of Carson Lake Drainage Dist. No. 8, Mississippi County, construct flood protection and drainage work; receive bids Nov. 20; Morgan Engineering Co., Engr., Goodwyn Institute, Memphis, Tenn. (See Machinery Wanted—Drainage).\*

Ark., Osceola—Comms. of Sub-District No. 3 of Grassy Lake and Tyronza Drainage Dist. No. 9, Mississippi County, receive bids Nov. 19 for flood protection and drainage work; Morgan Engineering Co., Engr., Goodwyn Institute, Memphis, Tenn. (See Machinery Wanted—Drainage).\*

Fla., Avon Park—Istokpoga Sub-drainage Dist. Supvrs. let contract to Fred C. Morton, Indianapolis, Ind., for 40 mi. main canals, to reclaim 100,000 acres highlands muck land; 3,143,000 cu. yds. excavation; channel will link Kissimmee river with Lake Istokpoga.\*

Fla., Fort Myers—See Land Development.

Fla., Stuart—St. Lucie Inlet Dist. Comms., C. Van Anglen, Sec., receives bids Dec. 8 for dredging and jetty construction; J. M. Braxton, Chf. Engr., 319 St. James Bldg., Jacksonville. (See Machinery Wanted—Dredging.)

La., New Orleans—Atchafalaya and Lafourche Basin Levee Board, 213 New Orleans Court Bldg., receives bids Nov. 7 for work on Bayou Lafourche dike, Ascension Parish. (See Machinery Wanted—Dikes.)

Mo., St. Charles—Pioneer Construction Co., 270 Glover Bldg., Kansas City, has contract to excavate ditches and construct levees in the Hancock Bottom Drainage and Protection Dist.

Tex., Cotulla—Plans of the La Salle County Water Improvement Dist. No. 1 have been approved for Nueces irrigation project; site of proposed dam selected, to be known as dam site B, cost of dam, canal system, purchase of lands, telephone lines, roads, etc., approximately \$7,300,000; votes Nov. 30 on bonds; A. P. Rollins, Engr., Keystone Bldg., Houston.\*

Tex., Dallas—City of Dallas and Dallas County Levee Improvement Dist. No. 10, E. N. Noyes, Dist. Engr., advises: No work being done at present; expect project to be revived in coming two years.\*

Tex., Freeport—See Miscellaneous Construction.

Tex., Hidalgo—Hidalgo County Water Improvement Dist. No. 5 receiving bids for 17 mi. canals and control gates for irrigation

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



project; 220,000 yds. earth excavation, 100 acres grubbing and 200 yds. reinforced concrete; A. Tamm, Engr., Harlingen, Tex.\*

Tex., Wichita Falls—J. A. Kemp, Texas Conservation Assn., City Natl. Bank Bldg., interested in extending Wichita Falls Irrigation Dist., reclaiming 75,000 additional acres.

### Electric Light and Power

Ala., Altoona—Alabama Power Co., Brown-Marx Bldg., Birmingham, granted franchise to supply electricity in Altoona.

Ala., Camden—Liddell Power Co., lately noted having power franchise, has ice plant, electric light, ginning and corn mill; install 100 h.p. crude oil engine and 150 h.p. oil engine and electric fixtures, 12-ton ice plant; C. E. Morris, Constr. Engr., Evergreen; Fairbanks, Morse & Co., 608 Magazine St., New Orleans, La., Equipment Contrs.\*

Ark., Hot Springs—See Land Development.

Ark., Gravette—A. N. Walker, Aurora, Mo., representing capitalists, will probably acquire light plants at Gravette, Gentry and Decatur.

Ark., Siloam Springs—Charles W. Page, Tulsa, Okla., will probably acquire light plant.

Florida—A. E. Fitkin, 165 Broadway, New York, reported to expend \$5,000,000 for expansion of electric light and power facilities, including \$2,500,000 power plant on Santa Fe River near High Springs.

Fla., Apalachicola—See Roads, Streets, Paving.

Fla., Avon Park—Florida Public Service Co. acquired white way system; will extend line.

Fla., Avon Park—See Land Development.

Fla., Clearwater—See Land Development.

Fla., Daytona—See Land Development.

Fla., Groveland—See Land Development.

Fla., Homestead—See Land Development.

Fla., Jacksonville—See Land Development.

Fla., Melbourne—See Land Development.

Fla., Miami—See Land Development.

Fla., Orlando—See Land Development.

Fla., Perry—City contemplates installing white way system. Address the Mayor.

Fla., Punta Gorda—City votes in about 40 days on electric light bonds. Address The Mayor.

Fla., Salerno—City voted electric light bonds. See Financial News—Bond Issues Proposed.

Fla., St. Augustine—See Land Development.

Fla., Stuart—City Comsn. accepted 30 yr. franchise of Florida Power and Light Co., 27 N. W. First St., Miami.

Fla., Stuart—City voted bonds for electric lights, sewer system, parks. See Financial News—Bond Issues Proposed.

Fla., Tampa—See Land Development.

Fla., Titusville—See Land Development.

Fla., Verna—See Roads, Streets, Paving.

Fla., Okeechobee—See Land Development.

Fla., West Palm Beach—See Land Development.

Fla., Winter Haven—See Land Development.

Ga., Sparta—Georgia Southern Power Co., Dublin, John L. Livers, Pres., will probably acquire municipal light plant.

Kentucky—General Power and Light Co., Chicago, Ill., reported acquired plants of Calhoun Public Service Co., Calhoun; Sebree Power and Light Co., Sebree; Slaughters Electric Light Co., Slaughters; Corydon Light and Power Co., Corydon.

Ky., Calhoun—Condon Engineering Co., 231 S. La Salle St., Chicago, Ill., acquired light plant and equipment of Calhoun Light and Water Co.

Ky., Louisville—Power Plant—Southern Baptist Hospital, Lexington Rd. and Grinstead Drive, has permit for \$45,955 brick power house.

La., Baton Rouge—See Land Development.

La., New Orleans—New Orleans Public Service, Inc., reported acquired control of Citizens Light & Power Co. and Consumers Light & Power Co.

La., White Castle—Town will vote on bonds for electric light plant. See Financial News—Bond Issues Proposed.

Md., Baltimore—City reported to install electric lights on St. Paul St. from Twentieth to Thirty-first Sts.; Wm. A. Parr in charge.

Miss., Columbia—Mississippi Power Co.,

Gulfport, H. L. Pritchard, Mgr., will improve local plant; install machinery.

Mo., Rolla—Ozark Public Service Co., capital \$50,000, incorporated; Geo. E. Silver, E. J. Koch.

N. C., Beulaville—City will install electric lights. Address City Comms.

N. C., Hendersonville—See Land Development.

N. C., Norlina—Carolina Power Co., Frank A. Reid, Pur. Agt., New York, acquired 60 yr. franchise and plant of Norlina Electric Light Co.

N. C., Shelby—See Land Development.

Okla., Hinton—D. T. Wilson has contract for electric light plant improvements; Benham Engineering Co., Const. Engrs., 512 Gumbel Bldg., Kansas City, Mo.\*

Okla., Oklahoma City—State Conservation Comsn. granted extension of time to Grand River Hydro-electric Co. for starting proposed work on power project; work to begin Nov. 1, 1927.

Okla., Tishomingo—Oklahoma Gas and Electric Co., Oklahoma City, lately noted acquiring electric light and ice plant; contemplates improvements to plant, erect electric system and 20-ton ice plant.\*

S. C., Charleston—See Land Development.

Tex., Matador—Matador Electric and Ice Co. increased capital, \$20,000 to \$40,000.

Tex., Megargel—Continental Gas, Light & Power Co. acquired light and power plant.

Tex., San Marcos—Chamber of Commerce interested in installation of electric lights.

Va., Richmond—Virginia Electric & Power Co., capital \$15,000,000, formed by merger of Virginia Railway & Power Co. and Spotsylvania Power Co.; Luke C. Bradley, Pres.; A. H. Hermann, Sec.

W. Va., Charleston—See Land Development.

### Fertilizer Plants

Tenn., Knoxville—Knoxville Fertilizer Co., Bankers Trust Co. Bldg., let contract to Worsham Bros. Empire Bldg., for addition to fertilizer plant, 30x300 ft., 40x170 ft., concrete, wood and steel construction; Manley, Young & Manley, Archts., Knoxville Bldg.

### Flour, Feed and Meal Mills

Mo., St. Louis—Russell-Miller Milling Co., capital \$50,000, incorporated; W. C. Helm, H. R. Ward.

Tex., Fort Worth—Humphrey Mill and Elevator Co., capital \$70,000, incorporated; Fred L. Humphrey, 3612 Loughton St.; S. Spears.

### Foundry and Machine Plants

Ky., Ashland—Mayo Equipment Co., organized by C. C. Mayo and Alex. Cameron, reported, acquired manufacturing plant in Huntington, W. Va., and one in Dayton, Ohio; manufacture garage tools, etc.

Md., Baltimore—Warwood Tool Co. of Warwood, W. Va., establish plant at Eleventh St. and Philadelphia Rd. for manufacture piston rings; H. H. Kistner, Gen. Mgr.

Mo., Kansas City—R. W. Yates Laundry Machinery Co., 1210 W. Ninth St., acquired site cor. Tenth and Cherry Sts.; let contract for \$50,000 building, 1-story, 150-ft. square; Clifton B. Sloan, Archt., 321 E. 11th St.

Mo., St. Louis—St. Louis Car Co., capital \$3,000,000, incorporated; Edwin B. Meissner, 6321 Washington St.; Geo. W. Scruggs.

Mo., St. Louis—Carter Carburetor Corp., capital \$167,000, incorporated; G. R. Scanland, Howard C. Wick, 2838 S. Spring Ave.; manufacture automobile carburetors.

Tenn., Chattanooga—Crane Enamelware Co., 1316 Chestnut St., increased capital, \$3,500,000 to \$5,000,000.\*

Tex., El Paso—Rathbun Co., capital \$30,000, incorporated; Donald Rathbun, V. M. Brown; manufacture engine room supplies.

### Gas and Oil Enterprises

Ark., Hot Springs—See Land Development.

Ark., Smackover—Crusader Pipe Line Co. reported let contract to J. J. Connor & Son, 1221 Stratford Rd., Kansas City, Mo., for construction of \$2,250,000 pipe line from Smackover and El Dorado oil fields to Mississippi River, 150 miles long.\*

Fla., Daytona—See Land Development.

Fla., Tampa—Tampa Gas Co., 201 Madison St., will sell \$500,000 8% stock for extension of plants and distribution system.

Mo., Joplin—Orford Oil Co., Harlan H. White, 204 Miners Bank Bldg., have let contract for \$25,000 worth of equipment.

Mo., Potosi—Washington County Oil Corp., chartered; Aaron Lewis, A. H. Carr.

Okla., Okmulgee—Do Oil Co., capital \$10,000, incorporated; E. E. Schock, 402 S. Morton St.; R. H. Ellison.

Okla., Ponca City—Marland Refining Co., Walter Miller, Mng. Director, reported to expend \$4,000,000 for construction and enlargement of plant.

Okla., Tulsa—Tulsa Service Oil Co., capital \$10,000, incorporated; R. E. Forsman, 418 S. College St.

Okla., Tulsa—Hobart Drilling Co., capital \$25,000, incorporated; W. E. Holmes, New Wright Bldg.

Okla., Vinita—Vinita Oil and Gas Co., capital \$50,000, incorporated; Charley Payne, John Hawkins.

Tex., Amarillo—Stevens Oil Co., capital \$20,000, incorporated; Sam B. Vaughn, A. A. Lumpkin.

Tex., Fort Worth—Texas Pacific Coal and Oil Co., Farmers and Mechanics Bldg., reported acquired Montrose Oil Refining Co.'s plant, Denton Rd.; will improve and manufacture lubricating oils.

Tex., Fort Worth—Dublin Developing Co., capital \$75,000, incorporated; Burton Christmas, R. A. Stuart, B. Burnett Bldg.

Tex., Fort Worth—Donnelly and Tunstall Co., incorporated; Leo Potishman, 2009 Sixth Ave.; T. F. West.

Texas—Houston Oil Co., Scanlon Bldg., Houston, reported acquired Carolina-Texas Oil and Gas Co.'s gas lands in Texas.

Tex., Jefferson—Moon-Lake Oil and Gas Development Co., incorporated; D. L. Wright, T. B. Warden.

Tex., Vernon—Little Oil Co. increased capital, \$15,000 to \$50,000.

Tex., Wichita Falls—Compton Oil Co., capital \$10,000, incorporated; L. M. Bradley, Henry B. Lewis.

### Ice and Cold-Storage Plants

Ala., Camden—See Electric Light and Power Plants.

Ala., Prichard—James McDonough and associates leased site; will erect \$75,000 ice plant.

Ala., Stevenson—Stevenson Ice Co., Paul G. Schultz, Sec., will erect 12-ton capacity ice plant, brick, 32x70 ft., cement floors; begun work.\*

Fla., Hollywood—Hollywood Land & Water Co., J. W. Young, Pres., let contract to Construction Co. of Hollywood for ice and cold storage plant; 247x94 ft. 6 in., concrete, composition roof, concrete floors; \$150,000 total cost of building and equipment; install one 10x10 compressor direct connected to 100 h.p. Westinghouse synchronous motor; one 12x12 compressor direct connected to 125 h.p. Westinghouse synchronous motor and other necessary equipment; ice-making equipment furnished by Frick Co., Waynesboro, Pa.; insulation cork and equipment for storage rooms furnished by Armstrong Cork & Insulation Co., 24th Ave. and V. R. R., Pittsburgh, Pa.

Md., Baltimore—The Madison County Power Co., 1310 Standard Oil Bldg., incorporated; Herman A. Lang, Joseph A. Slattery; manufacture artificial ice.

Miss., Hattiesburg—Electric Ice Co., Inc., 414 Carondelet St., New Orleans, La., let contract to United Iron Works, Inc., 301 Ridge Arcade Bldg., Kansas City, Mo., for 20-ton capacity ice plant, raw water system; 70x42 ft., concrete floors; install two 7½x8-in. vertical single acting compressors and 330 can tank, all purchased. (See Machinery Wanted—Salt.)\*

Mo., Fredericktown—Madison Ice & Fuel Co., capital \$40,000, incorporated; W. H. Harris.

Mo., St. Louis—Polar Wave Ice & Fuel Co., 3638 Olive St., will erect two 1-story ice storage and office buildings, 69x184 ft. and 23x26 ft., at 4622 Kingshighway, estimated cost \$70,000.

N. C., Lexington—Thomas W. Teaver of Belleville, Kan., reported, will erect 20-ton capacity ice plant.

Okla., Tishomingo—See Electric Light and Power Plants.

S. C., Blacksburg—Blacksburg Ice & Fuel Co., Chas. Baber, Mgr., plans installing additional 5 ton capacity plant, increasing output to 10 tons.

Tex., Abilene—Witherspoon Co., 104 Barwise St., Wichita Falls, reported, establish \$60,000 produce storage house.

Tex., Dallas—Texas Ice and Cold Storage

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Co., 4008 Commerce St., will erect by day labor, 1-story, 100x144-ft. factory building; brick, tar and gravel roof, sheetrock interior, cost \$25,000; Vern E. Shanklin, Archt., 3310 Commerce St.

Tex., LaPorte—LaPorte Ice Co., C. O. Crenshaw, Mgr., remodel old building; will install vaults, compressors, blowers, pumps, ice cans, filters, etc.; daily capacity 12 tons.\*

Va., Norton—Old Dominion Ice Corp. reported erect \$100,000 ice plant on Twelfth St., daily capacity 50 tons, also to enlarge and improve plant at Pennington Gap, Coeburn, St. Paul and Appalachia.

### Land Development

Ala., Florence—Brill and Rosenlicht, New York, will develop 40-acre subdivision.

Ark., Gentry—Appleton Fruit Land Co., capital \$75,000, incorporated; I. Matthews, J. K. Seay; develop subdivision, establish cannery.

Ark., Hot Springs—Dr. Albert H. Tribble will develop Trivista subdivision; install water, sewers, road and streets, electric lights, gas, ornamental entrances.

Ark., Siloam Springs—The Ozark Co., capital \$50,000, incorporated; J. K. Livingston, A. Ries.

Fla., Avon Park—Park Trammell and Lee Trammell are developing a subdivision; will install electric lights, water, sewers, roads.

Fla., Bartow—Florida Land Development Co., Inc., are developing bungalow colony and auto camp on W. Main St.

Fla., Bronson—A. P. Anthony, 1609 Oak St., Jacksonville, acquired 1265 acres; develop subdivision.

Fla., Bunnell—All-Florida Realty Co., Miami, Herman Meister, Pres., will develop 10,000-acre subdivision.

Fla., Clearwater—Joseph P. White is developing Clearwater Beach Island subdivision; construct 6 waterways, 60-ft. boulevards, install water, sewers, electric lights.

Fla., Daytona—Daytona Shores, Inc., C. Louis Allen, Mgr., is developing Daytona Shores subdivision; construct streets, pier, will dredge river for proposed 800-ft. fill and \$300,000 causeway; C. M. Terry in charge of improvements.\*

Fla., Daytona—Gage Advertising Service, 43 N. E. Second St., Miami, advises that Country Club Development Co. organized with \$200,000 capital, C. M. Wilder, Pres.; J. B. Kahn, Sec., temporary office 121 Magnolia St., is developing 185-acre subdivision; is receiving bids for construction of yacht basin, streets, curbing, lights, sewerage, sidewalks, gas, shrubbery, water, etc.; expend \$1,000,000; Frederick L. Olmstead, Landscape Archt., Brookline, Mass.; W. W. Fineren, care Country Club, Constr. Engr.\*

Fla., Daytona—Daytona Beach Realty Corp., 110½ Orange Ave., acquired for Albert H. Macksoud, New York, and Michael Hawle, Bridgeport, Conn., tract of ocean to river land; will develop subdivision.

Fla., Daytona Beach—Bleckman & Robinson Syndicate are developing 54,000 acre subdivision in Flagler County.

Fla., DeLand—Dreka Realty & Development Co. will develop 55 acres; install roads and streets.\*

Fla., DeLand—Henry C. Lonsford, 310 S. Michigan Blvd., Chicago, will develop 380-acre subdivision.

Fla., Fort Lauderdale—Taylor Development Co., Inc., B. Frank Taylor, Pres., is developing Pinehurst 40-acre subdivision; has installed water, rock streets and electric lights; will soon let contract for cement sidewalks and curbing.

Fla., Fort Myers—San Carlos Syndicate, Inc., will develop subdivision; will drain 800 acres; are receiving bids for concrete bulkheads, suction dredge fills, sidewalks, roads; Wm. H. Dean, Resident Engr. (See Machinery Wanted—Dredges.)

Fla., Groveland—Arnold Bros. plan development of subdivision; will install water, sewers, electric lights, roads; will rebuild burned sawmill and planing mill to supply building material; Bishop Engineering Co., Engrs.

Fla., Homestead—B. E. Hearn, Sec. of Tyndall & Co., 3738 N. E. Second Ave., Miami, will develop 80 acre subdivision; install water, sewers, electric lights, roads.

Fla., Jacksonville—H. H. Simmons Realty Co., Union Term. Bldg., acquired tract on Parker St.; develop subdivision; install water, sewers, electric lights, roads.

Fla., Jacksonville—Peninsular Casualty Co.,

Peninsular Cas. Bldg., C. E. Clarke, Pres., acquired Riverside Ave. frontage.

Fla., Jacksonville—Ilanda Realty Co., 112 W. Forsyth St., are developing Ilanda subdivision; let contract to National Construction Co., Minneapolis, Minn., for dredging; construct 22 islands; install water, sewers, paved streets and sidewalks, boulevards, underground wire electric system and telephones; The Buckman Corp., Consulting Engineers, Graham Bldg.

Fla., Kissimmee—Gilbert Sales & Securities Co. will develop Gilbert Park subdivision; Bishop Engineering Co., 116 S. Orange St., Orlando, will have charge of work, including storm sewers, water works; 19,000 ft. of oil surface and sand finished paved streets, curb and gutters; white way; expend \$150,000.

Fla., Lakeland—Dr. Holmes Mason, Macon, Ga., and associates will develop 500-acre subdivision.

Fla., Lake Wales—National Town & Country Club, M. G. Campbell, Treas., Citizens Bank of Lake Wales, acquired 540 acres; will expend \$1,000,000 for development, including clubhouse, two 18-hole golf courses, yacht club.

Fla., Marianna—Jas. A. Smith will develop 80 acres for subdivision; install roads and streets.

Fla., Melbourne—Humphrey & Shipman, Inc., let the following contracts for improvements to subdivision: White-way boulevard lighting to Melbourne Electric Co., who have sublet material contract to General Electric Co., Schenectady, N. Y.; paving and sidewalks to Evans Construction Co., Melbourne; land will be graded and land scraped.\*

Fla., Melbourne—M. C. Hughes Realty Co., Inc., is developing Melbourne Gardens subdivision.

Fla., Miami—Merwin Park Realty Co., 334 W. Flagler St., selling agents for Florida Townsite Co., are developing Merwin Park; install water, sewers, white way lights, roads.

Fla., Miami—J. C. H. Realty Corp. is developing Allapattah Commercial Center subdivision; install roads, paved streets, water, electric lights, white way street lighting system.

Fla., Miami—A. Felt, Pres. of Allentown Development Co., Inc., 21 S. E. First Ave., reported let contract for sidewalks, curbing, electric lighting system, water works system, including reservoir and pumps for Allentown townsite.

Fla., Miami—Charles L. Brooks, Lee Brooks-Weede, Inc., acquired 320 acres land on Ludlum Rd.

Fla., Miami—Tropic Subdividers & Developers, Inc., 229 Halcyon Arcade, is developing subdivision at Biscayne Rd. and Grapeland Blvd.; let contract to Walker & Stron for paving streets.

Fla., Miami—Benjamin Davidson, Sioux City, Ia., acquired 160 acres on Gratigny Rd.

Fla., Miami—Tropical Florida Development Corp., 4 S. W. Second Ave., will develop 20,000 acres at Poinciana for city; are having surveys made now and will begin construction work Jan. 1; construct roads, boulevards and channels leading from the Gulf.\*

Fla., Okeechobee—Southern Land & Homes Corp., Detroit, Mich.; Central Florida Development Co., Indianapolis, Ind., are developing 320-acre subdivision; construct canal with paved boulevards on each bank, swimming pool, storm sewers, paved streets, electric lights, water plant; McDonald & McKinley, Indianapolis, have contract to develop property.

Fla., Orlando—Works-Van Valkenburgh Investment Co., S. D. Works, Pres., acquired Interlachen, 160 acre tract; develop subdivision; install water, sewers, electric lights, roads.

Fla., Orlando—Mount Plymouth Corp., Wm. Edwards, Pres., reported to develop 4000 acres for subdivision.

Fla., Panama City—Switzer & Mulock, Gay Bldg., will develop 140 acres of water front.

Fla., Pensacola—A. G. Davenport, Walter L. Bowers acquired 100 acres; will develop.

Fla., Pensacola—John Asman acquired 300 acres on Old Spanish Trail; will develop.

Fla., Pensacola—City voted \$100,000 bonds for 18-hole golf course at Osceola Club. Address the Mayor.

Fla., Pensacola—Davenport & Bowers acquired 100 acres; will develop.

Fla., Perry—Gardner S. Rogers, Milwaukee, Wis., reported interested in development of 1000 acres on Fenholloway River for subdivision.

Fla., Pompano—Douglas J. Luckhurst, V. P., Genesis Improvement Co., are proceeding with development of Genese Isles; have surveyed Venetian waterways, boulevards, home sites; will excavate and dredge waterways 70 feet wide and 15 feet deep; construct yacht basin; J. M. Jones, Resident Engineer.

Fla., Sarasota—E. H. Price of E. H. Price Realty Co., reported sold to Ohio capitalists 30,000 acres land; develop subdivision.

Fla., St. Augustine—Col. J. N. Bradshaw, Jefferson Theater Bldg., and H. H. Redding will develop units 3 and 4 of Araquay Park subdivision; install water, sewers, roads, electric lights.

Fla., St. Augustine—Max E. Weinberger acquired 35 acres; will develop.

Fla., St. Augustine—Russell H. Gress, 45 King St., developer of Santa Rosa, wires: "Capitol Concrete Co. has contract for development work, including sidewalks, sanitary sewers, curbs and gutters, water system, ornamental street lighting, bridges, bulkhead and dredging; Peter Kendrick Engineering Co., Engrs., City Bldg."

Fla., St. Augustine—J. N. Bradshaw Co., King St., are preparing to develop units 3 and 4 of Araquay Park subdivision; install water, sewers, roads, electric lights.

Fla., St. Petersburg—Claude E. Neal and associates will develop subdivision on Lehman Ave.

Fla., St. Petersburg—H. H. Petersen, L. H. McMasters, 226 13th St. N., and others reported interested in organizing company with \$1,000,000 capital to develop Pine Key subdivision.

Fla., St. Petersburg—P. Harmon and H. P. Fleming will develop subdivision on Lakeview Ave.

Fla., St. Petersburg—Florida Properties Assn. will develop 35-acre subdivision, construct roads; T. W. Hindley, Sales Director.

Fla., St. Petersburg—Crystal Development Co., I. L. Milton and F. L. Detherage, Chicago, Ill., will develop subdivision; Boardman-Frazee Realty Co., Sales Agt., 176 Central Ave.

Fla., Stuart—City voted bonds for parks. See Financial News—Bond Issues Proposed.

Fla., Tampa—E. L. Martin, Sayre, Okla.; F. J. Lassiter, Tampa, and associates reported acquired 4500 acres; develop subdivision.

Fla., Tampa—Henry J. Scheirich, Louisville, Ky., and associates acquired 26,000 acres muck land; will develop.

Fla., Tampa—Bedell Realty Co., 307 Cass St., is developing subdivision; will install water, sewers, electric lights, roads; A. Mendenhall, Contr., 307 Cass St.; Lea Landscaping Engineering Co., Archt.

Fla., Tampa—Tampa Shores Corp., Henry S. Duncan, New York, acquire entire holdings of Oldsmar Land & Development Co.; will organize Tampa Shores Golf and Country Club; develop 19-acre polo field, yacht and tennis club; also plan extensive paving and excavation contracts; expend \$1,500,000 on improvements; Stiles & VaVn Kleek, Landscape Archts., Taylor Arcade, St. Petersburg.\*

Fla., Tampa—Denison-Wolf Realty Co. and A. J. Simms Co., Citrus Exchange Bldg., have completed plans for developing 150 acre subdivision; install water, sewers, electric lights, roads.

Fla., Tampa—D. P. Davis Properties, 502 Franklin St., acquired 40 acres land between Dover and Seffner; develop for nurseries.

Fla., Titusville—Rock Park Development Corp., W. W. McConnell, Pres., reported to begin work on development of Titusville Beach Estates; construct streets, install water, sewers, electric lights; casino and pier; expend \$1,000,000; W. D. Bartlett, Archt., Newark, N. J.; R. W. Eddsoles, in charge of work and building; Henry B. Smith, Titusville, Engr., in charge.

Fla.—Wauchula—Harry Leaberry and John Barriatt acquired Wauchula Hills subdivision.

Fla., West Palm Beach—Albert O. Grey-nolds is developing 1000 acres land at Lantana for subdivision; contracts have been let for \$2,500,000 worth of improvements.

Fla., West Palm Beach—E. A. Garburg Interests will develop Madrid Park subdivision; install water, sewers, electric lights, boulevards, 60-ft. streets, recreation park.

Fla., Winter Haven—O. R. Alexander & Son will develop 100-acre subdivision.

Fla., Winter Haven—John B. Ballard, Akron, O.; Carl Roebuck, Indianapolis, Ind., acquired 114 acres; develop subdivision; install water, sewers, electric lights, roads.

Ga., Albany—Barron G. Collier, 220 W. 42nd St., New York, reported acquired for Empire State Development Co., Blue Springs,

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170 acres; Gill pecan farm, 465 acres and 23 additional acres; develop resort; construct 18-hole golf course, lake.

Ga., Savannah—J. Maril, 310 E. Gaston St., acquired 25 acres on Victory Drive.

Ga., Savannah—Solomon Kaminsky will develop 2400-acre subdivision.

Ga., Thomasville—Thomasville Investment Co. acquired 36-acre pecan grove.

La., Baton Rouge—Southdowns, Inc., R. L. Himes, 611 North St., will develop subdivision; construct roads, extend electric lights, water works.

La., Lake Charles—See Sewer Construction.

La., New Orleans—Hardie & Ellis Realty Co., capital \$50,000, incorporated; A. L. Saxon, 449 Audubon St.

La., New Orleans—Home Realty Co., incorporated; Frank Brinker, 820 Solomon Pl.

La., New Orleans—Improvement Realty & Investment Co., capital \$100,000, incorporated; Walter H. Well, 16 Rosa Park; Chas. F. Geraud.

La., New Orleans—Canal Realty Co., incorporated; A. A. Massicot, 5608 Ada Place; Norita Massicot.

La., Shreveport—City Park Board plans developing 160 acres land for park and golf course.

Md., Baltimore—Scarborough & Preston Building Co., 11 Kolb Ave., capital 20,000, incorporated; John O. Scarborough, James R. Preston.

Md., Baltimore—Square Deal Construction Co. plans development on Druid Park Drive and Green Spring Ave.; Wm. D. Jean, Wm. D. Webb, Constr. Engrs., all 43 Gunther Bldg.

Md., Ocean City—Maryland Seashore Corp., Wm. B. Jones, plans development.

Miss., Pass Christian—P. H. Enochs, Inc., acquired 71 acres at White Harbor.

Mo., Joplin—City Park Board let contract to A. S. Greenwell, 802 Joplin St., to construct bathhouse and barn at Schifferdecker Park; to Fred Briggs, 218 W. Third St., for sewer system.\*

Mo., Kansas City—William E. Lyons Real Estate & Mortgage Co., 1010 Baltimore St., will develop Swopeland, 40 acre subdivision.

Mo., Kansas City—Jackson County Park Board, John W. Hudson, Sec., 302 Commerce Bldg., will develop rural park of 30 acres.

Mo., St. Louis—Jacob Baker, Railway Exchange Bldg., and Frederick Essen, 7501 Henderson St., will develop 40 acre tract on Spoede Rd.

Mo., St. Louis—Oxymel Realty Co., incorporated; Geo. L. Schaberg, 5915 Maple St.

Mo., St. Louis—Davis Realty Co. will develop 210 acres for apartment-house subdivision; install roads and streets, playgrounds, water, sewer, electric lights; Harlow Bartholomew and Onstead Bros., Boston, Mass., Landscape Engrs.

N. C., Allegheny County—Roaring Gap, Inc., Doughton, N. C., Leonard Tufts, Pres., Pinehurst, is developing 800 acres for summer resort; Porter & Peck, 1118 Independence Bldg., Charlotte, Contrs.; D. Chat-ham, Constr. Engr., Doughton.\*

N. C., Asheville—Calvin Clair, 809 N. W. 14th St., Miami, Fla., acquired through Gray Gorham, 14 Government St., 204 acres in Leicester section; will develop.

N. C., Asheville—Central Realty and Investment Co., capital \$25,000, incorporated; S. A. Barbee, Thomas S. Clark, 147 Charlotte St.

N. C., Brevard—Pisgah Realty Co., capital \$10,000, incorporated; W. F. Short, J. Frank Martin.

N. C., Greensboro—Broadacres, Inc., capital \$15,000, incorporated; H. L. Starr, L. L. McAllister.

N. C., Greensboro—Southern Improvement Co., capital \$100,000, incorporated; Louis L. Ruelson, W. E. Johnson.

N. C., Greensboro—Westside Land Co., capital \$100,000, incorporated; W. F. Ross, Benbow Arcade; J. S. Duncan.

N. C., Hendersonville—Grand View Mountain Corp., J. M. Clarke, Pres., Sarasota, Fla., will develop 800 acres on Grand View Mountains for subdivision; install water, roads, streets, sewers, electric lights; S. B. Howard, Engr.

N. C., New Bern—Topsail Beach, Inc., capital \$100,000, incorporated; F. M. Simmons, T. D. Warren.

N. C., Shelby—E. A. Marshall & Son, Clearwater, Fla., engaged E. S. Draper, Landscape Archt., Charlotte, for development of Cleveland Springs subdivision; lay streets, sidewalks, 18-hole golf course, sewers, water, electric lights.\*

N. C., Whiteville—Town acquired 10 acre tract for playground and park site. Address The Mayor.

N. C., Wilmington—Jesse F. Roache of Home Savings Bank, 200 N. Front St., will develop 55-acre subdivision.

Okla., Tulsa—L. L. Hutchison, Kennedy Bldg., will develop subdivision.

S. C., Charleston—Edisto Realty Co., C. Bissell Jenkins, Sr., Pres., Peoples Bldg., is developing 90 acres land for subdivision; A. L. Welch in charge of road work; install electric lights, water works, telephones, 2 artificial lakes; John McCrady, Engr.

S. C., Charleston—Jac D. Lesemann & Sons, 32 Broad St., are developing 115 acre subdivision; will install water, sewers, roads, electric lights.

S. C., Charleston—Cottwell Corp. incorporated; George F. Trescott, 7 Thomas St.; John W. Caldwell.

S. C., Charleston—Pearwell Realty Co., incorporated; J. C. Cogswell, Milton Pearl-stine.

S. C., Georgetown—Thomas A. Yawkey, New York, acquired from J. L. Wheeler, Marion, S. C., 18,000 acres, including South Island; will develop.

S. C., Greenville—J. G. Landrum, 212 Hampton Ave., acquired 151 acres in Glassy Mountain township.

S. C., Meggett—Tosoco Corporation, capital \$30,000, incorporated; D. Q. Towles, W. B. Searson.

S. C., Orangeburg—F. W. Symes Corp., incorporated; F. W. Symes, Carlton E. Wolfe.

Tex., Beaumont—See Financial News—Bond Issues Proposed.

Tex., Houston—Beaconsfield Realty Co. incorporated; Hugh Wilkins, J. L. Martin, 1519 Hussion St.

Tex., Houston—Meadowbrook Development Co., capital \$132,000, incorporated; B. F. Bonner, First Natl. Bank Bldg.; George F. Howard.

Tex., San Antonio—Eldorado Realty Co., capital \$35,000, incorporated; J. E. O'Neill, W. W. Adams, 940 W. Summit St.

Va., Natural Bridge—Oliver J. Sands, Richmond, reported to be negotiating for Natural Bridge Resort. Mr. Sands advises that Natural Bridge Hotel and property, about 1400 acres, will be owned by Rock-bridge Corp., P. O. Box 1219, Richmond; Pres., Oliver J. Sands; vice-pres., J. Lee Davis; operation of hotel under management of H. M. Lottus, Natural Bridge; golf course is being constructed and villa sites will be hold and tea house built, and general improvements for tourists will be made.

Va., Richmond—Weaver Lake Co., capital \$50,000, incorporated; Warren L. Tillar, William T. Johnson, 11th and Bank Sts.

W. Va., Charleston—Charles Little Co., capital \$50,000, incorporated; M. R. Little, Howard L. Robinson.

W. Va., Charleston—Sunset Memorial Park Co., L. E. Poteet, Pres., 1005 Quarrier St., will develop 30 acres for burial park; install 25,000 sewer system, \$25,000 water works, \$200,000 roads and streets, landscape gardening.\*

### Lumber Enterprises

Fla., Brooksville—Geo. T. McGowan, Pres. Garden Grove Properties, will establish saw and planing mill.

Fla., Panama City—Panama City Lumber Co., J. L. Elmore, Pres., increased capital, enlarging facilities.

Ga., Argyle—Lon Dickey Lumber Co., Fitzgerald, advises: Will rebuild burned mill, planing mill and kiln; have about 20,000,000 ft. timber to develop.\*

La., New Orleans—Liberty Lumber Yard, Inc., capital \$30,000, chartered; Sam Cohen, 5513 Magazine St.

S. C., Greenville—The Oregon Lumber Co., A. F. Day, Pres., Denver, Colo., acquired the Lawton Lumber Co., 201 E. Court St.; continue existing business.

W. Va., Huntington—John F. Ferrell Lumber Co., acquired plant of City Lumber & Supply Co., First St. and C. & O. R. R.; will operate; applied for franchise to lay switch track from C. and O. main line to plant.\*

### Mining

Ark., Radway—Central Sand & Gravel Co., capital \$25,000, incorporated; E. N. Jenkins, E. W. Higgins, Pine Bluff.

Ark., White Cliffs—See Concrete and Cement Plants.

Fla., Ellenton—M. J. Blair of North Troy, Vt., and associates, acquired fuller's earth plant with 248 acres adjoining; all property borders on Manatee River (Tami Trail); probably develop.

Fla., Kendrick—Cummer Co. of Jacksonville will erect lime plant; Charles H. Lloyd in charge of construction.

S. C., Columbia—Granite Homes Co., capital \$10,000, incorporated; Burnie Pride, G. I. Rentz, 1015 Queen St.; develop stone quarry.

Tex., Fort Worth—A. J. Brown Development Corp., capital \$200,000, incorporated; A. J. Brown, 2252 College St.; R. A. Stuart; mining.

### Miscellaneous Construction

Fla., Apalachicola—Seawall—C. P. Fullington and associates interested in construction of 12-ft. seawall, extending from Lafayette Park to Battery Park.

Fla., Bradenton—Dock—Bradenton Yacht Club let contract to Herman Burnett, 100 ft. wooden piles, 8 ft. wide dock; J. B. Leffingwell, Jr., Engr.\*

Fla., Daytona—Pier—See Land Development.

Fla., Daytona—Yacht Basin—See Land Development.

Fla., Fort Myers—Bulkhead—See Land Development.

Fla., Jacksonville—See Land Development.

Fla., Okeechobee—See Land Development.

Fla., Osprey—Pier—Wilkinson Bros. will construct pier foot of Main St.

Fla., Pompano—See Land Development.

Fla., Salerno—Bulkhead and Seawall—City voted \$78,000 bonds for building bulkhead and seawall; Mrs. Jack Whitfield, City Clerk.

Fla., Sanford—Swimming Pool—See Miscellaneous Enterprises.

Fla., St. Augustine—Recreation Pier—E. K. Coles let contract to St. Augustine Building Co., Box 1153, for 1000-ft. recreation pier, creosoted piles, steel truss, frame buildings, composition shingles, hardwood dance floor; estimated cost \$60,000; install ornamental lighting fixtures for dance hall. (See Machinery Wanted—Lighting Fixtures; Steel Sash; Pile Driving.)\*

Fla., Stuart—Seawall—City voted \$200,000 bonds for seawall; Richard F. Ensey, City Engr.\*

Fla., Tampa—Terminals—Moore & McCormack, Inc., Bourse Bldg., Philadelphia, Pa., reported, develop terminal facilities; operate lines between Tampa, Wilmington, Philadelphia and New Orleans, La.

Fla., Tampa—Seawall—Charles P. Glover Development Co., 513 Tampa St., will soon begin construction of seawall to border Sunset Isle and Bayshore section of Sunset Park; work to begin about Nov. 1.\*

Fla., Titusville—Pier—See Land Development.

La., New Orleans—Dike—See Drainage, Dredging and Irrigation.

La., New Orleans—Wharf, etc.—Port Comms. received low bid from R. P. Farnsworth & Co., Canal-Commercial Bldg., at \$72,300 for wharf alterations, additions and embellishments at foot Canal St.; also low bid from Gulf State Creosoting Co., 1405 Whitney Bldg., for 22,700 lin. ft. creosoted piling, 275,000 ft. B. M. creosoted lumber and 70,000 ft. creosoted sheet piling.\*

S. C., Charleston—Lake—See Land Development.

Tex., Corpus Christi—Breakwater—Nueces County Navigation Dist. No. 1 let contract to Jay DePuy at \$100,000 for one additional section to breakwater, now under construction.

Tex., Freeport—Harbor—Brazos River Harbor Association interested in diverting main stream of Brazos river about 6 mi. above mouth across tidal flat of the Gulf, utilizing old channel of river below diversion for harbor purposes; estimated cost about \$1,000,000; will greatly facilitate shipping into and out of Freeport.

Va., Lynchburg—Public Works Dept. will construct steps on Clay St. leading from Twelfth to Thirteenth St.

W. Va., Huntington—Terminals—Greene Line Interests, Jesse Hughes, Supt., W. Fifth St., will soon begin construction of terminals on W. Fifth St.; has site with 300 ft. river frontage; first unit to be 60x90 ft., together with floating wharf, loading cranes and other devices; estimated cost \$50,000; construct additional units as needed.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## Miscellaneous Enterprises

Ala., Montgomery—Henry V. Haley, Chicago, and associates, acquired plant of the Gulf States Chemical & Refining Co.; will expend about \$30,000 on improvements; manufacture calcium arsenate.

Ala., York—E. S. Evans & Co., Inc., 1504 Dime Bank Bldg., Detroit, Mich., let contract to Ross Construction Co., York, for 100x54-ft. frame building; wood floors, iron roof; install \$25,000 special machinery to manufacture automobile shipping blocks; daily output 3 cars; equipment furnished by Chattanooga Machinery Co., Bennett and Watkins Sts., Chattanooga.

Ark., Augusta—Magnolia Hotel Co., capital \$35,000, incorporated; W. N. Gregory, T. I. Stanley.

D. C. Washington—National Tourist Homes, Inc., capital \$1,000,000, chartered; Wm. Knox, Chas. H. Brooks.

Fla., Bradenton—Western Florida Ice and Ice Cream Corp., R. B. Whitney, Pres., let contract to The Artley Co., 504 E. Bay St., Savannah, Ga., for plant cor. Jefferson St. and A. C. L. R. R.; also contemplates building plant at Sarasota; L. R. Cooler in charge.

Fla., Hialeah—Binswanger Glass Products Co., 655 Union St., Memphis, Tenn., begun construction of branch plant, also contemplates purchasing site for employees houses.

Fla., Jacksonville—Florida Publishing Co., let contract to W. D. Gerbrich Co., Barnett Bldg., for \$100,000 building cor. Adams and Cedar St., 4-story brick.

Fla., Sanford—Otter-Kelley Realty Co., reported, let contract to Irving Finchel Construction Co., New York, for amusement park on First St., structures to house casino, swimming pool, and other amusement devices.

Fla., Tampa—J. Ferdinand Van, Director of Belasco Productions, Inc., 115 W. 44th St., New York, reported erect \$250,000 motion picture studio; has acquired 30 acres in vicinity of Memorial Highway; building to occupy 680,000 sq. ft.; install \$175,000 equipment, including overhead cranes, lights, complete laboratory and projection room.

Ga., Atlanta—Whitehead Realty Co. let contract to Smith & Williams, Inc., 407 Wynne Claughton Bldg., for \$35,000 building at 232 Peachtree St. for candy manufacture; 4-story, 40x80 ft., concrete, brick and tile, cement and maple floors, concrete foundation; heating and power plants installed by Morris, Inc.; electric wiring for lights by McGaughey Electric Co., 123 Ivy St.; plumbing and sprinkler system by Loftis Plumbing and Heating Co., 440 Marietta St.; Pringle & Smith, Architects., Atlanta Trust Co. Bldg.\*

Ga., Augusta—Garden-City Engraving Co. incorporated; Chas. K. Booth, John Y. Smith.

Ga., Macon—Happ Brothers Co., 674 Broadway, let contract to W. L. Griffin for \$50,000 addition to overall plant at Broadway and Pine St., 115x62 ft., 4-story, mill construction, prism lights; will install 200 additional machines; contemplated output of entire plant between 3000 and 4000 dozen weekly.\*

Ky., Pineville—Capital Advertising Co. incorporated; James Daniel, L. N. Weller.

La., Baton Rouge—Eagle Drug Co., incorporated; Leonard Israel, Carl C. Christy.

La., Benton—Bossier Abstract & Title Co., Inc., capital \$15,000, chartered; R. B. Hill, D. W. Brownlee.

La., Elizabeth—Calcasten Sulphate Paper Co., Inc., R. M. Halliwell, Pres., will erect additions, wood mill construction, composition roof, wood floors; construction by owners; install digesters, diffusers and other paper mill machinery, cost about \$300,000, furnished by D. J. Murray Manufacturing Co., Wausau, Wis.; M. W. Kellogg Co., Jersey City, N. J.; Manitowoc Engineering Co., Manitowoc, Wis.; daily output 35 tons Kraft wrapping paper; J. E. Ryberg, Const. Engr.\*

La., New Iberia—New Iberia Rice Milling Co., Inc., capital \$12,000, chartered; Donald R. Burke, J. P. Duhe.

La., New Orleans—Tabasco Steamship Co., Inc., capital \$60,000, chartered; Felipe Canton, 704 Whitney-Central Bldg.

La., New Orleans—Rice-O-La Co., Inc., capital \$100,000, chartered; Chas. D. Collins, Jos. O. Schwartz, 100 Fontainebleau Drive.

La., New Orleans—Tabasco Fruit Co., Inc., capital \$20,000, chartered; Juan Argote, 226 Fulton St.

Md., Baltimore—Tidewater Contracting Co., Inc., 53 S. Gay St., capital \$25,000, incorporated; Jos. B. Adams, Paul F. Cullison.

Md., Baltimore—Farris C. Pitt, Inc., 912 N. Charles St., capital \$40,000, chartered; Herbert St. John Pitt, R. Edgar Tippet.

Md., Baltimore—Merchandise—Johnson Bros., Inc., 1409 Continental Bldg., capital \$25,000, incorporated; Wm. E. Johnson, Edward J. Curran.

Miss., Ruleville—Midway Hotel Co., capital \$35,000, incorporated; J. A. Clark, O. H. Livingston.

Mo., Kansas City—Asbestos Roofing & Shingle Co. incorporated; T. E. Doyle, 6034 Rockhill Rd.

Mo., Kansas City—Grandview Club Transfer & Storage Co., 1301 Central Ave., will erect 4-story fireproof building at 1307 Central Ave.

Mo., Kansas City—Lloyds Life Insurance Co., capital \$100,000, incorporated; Henry W. Spencer, 1906 E. 36th St.; Delmar D. Bryant.

Mo., Kansas City—Steamship Lines—Blue Dolphin Co., capital \$25,000, incorporated; A. W. Tyle, 5728 Grand Ave.; W. A. Velle.

Mo., St. Louis—Schubert-Rialto Building Co., Grand and Olive Sts., capital \$50,000, incorporated; E. L. Kirk, Fred J. Hoffmeister.

Mo., St. Louis—Merchandise—Bird & Son Sales Corp., chartered; Philip R. Allen, Roland S. Baker, 1404 Federal Commerce Trust Bldg.

Mo., St. Louis—United Insecticides, Inc., Arcade Bldg., capital \$20,000, chartered; O. Clayton Ike, H. Hoyer.

Mo., St. Louis—Dutton Advertising Co. incorporated; Dudley S. Dutton, 3963 Russell St.

Mo., St. Louis—American Printing Co., capital \$10,000, incorporated; August T. Siemens, 4809 Terrace St.

Mo., St. Louis—D. and C. Lungstras Co., Thirteenth and Park Sts., let contract to The Austin Co., Linz Bldg., Dallas, Tex., at \$15,000 for dry cleaning plant at 2111 S. Vandeventer St., 1-story, 27x201-ft., tile and composition roof, steam heat.

Mo., St. Louis—M. Jandes, 1103 Kingshighway Park, let contract to J. H. Kossman, 3884 Wyoming St., for \$12,000 laundry building at 4150 Chippewa St., 1-story, 99x54-ft., tar and gravel roof, steam heat.

Mo., St. Louis—Herf & Frerichs Chemical Co., capital \$100,000, incorporated; E. W. Clark, 1404 Fed. Com. Trust Bldg.

Mo., St. Louis—Stock Toy & Game Co., incorporated; Joseph F. Stock, 2449 Hord St.

Mo., St. Louis—Corona Typewriter Sales Co., 1006 Locust St., incorporated; Chas. C. Morley, Chas. W. Shull.

Mo., St. Louis—Duncan Construction Co., capital \$25,000, incorporated; N. V. Duncan, 223 Georgia St.

Mo., St. Louis—Pyramid Battery & Manufacturing Corp., capital \$20,000, incorporated; W. H. Burke, Wm. R. Schneider, Central Nat'l Bank Bldg.

N. C., Biltmore—David L. Strain, Jackson Bldg., Asheville, will receive bids for 2-story, 60x120-ft. building cor. Garfield and Decatur Sts. to be occupied by Haines, Jones & Cadbury Co., general offices 1136 Ridge Ave., Philadelphia, Pa., manufacturers of plumbing fixtures, pipe fittings, etc.; establish distributing branch.

N. C., Charlotte—Joseph Sykes Brothers, Charlotte Observer Bldg., acquired 75x150-ft. site at Gold and Mint Sts.; will probably erect plant to manufacture card clothing used in textile manufacture; Lockwood, Greene & Co., Architects, Piedmont Bldg.; main factory at Lindley, Huddersfield, England.

N. C., Elizabeth City—The Apartment Co., capital \$50,000, incorporated; W. G. Gaither, W. E. Griffin.

N. C., Greensboro—Southern Improvement Co., capital \$100,000, incorporated; Louis L. Ruvelson, J. R. Phillips.

N. C., Hickory—The National Garment Co., capital \$95,000, incorporated; C. W. Mayberry, J. D. McGill.

N. C., Kinston—The Free Press, 114 E. North St., let contract to W. E. Bailey & Bro. for heating and plumbing system for printing plant.

N. C., Wilmington—New Hanover Furniture Co., capital \$15,000, incorporated; E. S. Waddell, J. H. Bost.

N. C., Winston-Salem—R. J. Reynolds Tobacco Co. reported will soon start work on new unit of plant, reinforced concrete, 6-story; acquired site between Fourth, Fifth and Patterson Ave.; estimated cost about \$600,000; plans being made.

Okla., Blackwell—The Model Laundry, plans building \$40,000 laundry at 421 S. Main St.

Okla., Muskogee—Plaza Hotel Co., capital \$12,000, incorporated; R. D. Lawson, 534 N. 15th St., James R. Murray.

Okla., Sapulpa—Sapulpa Baking Co., capital \$25,000, incorporated; M. L. Speigle, Sapulpa; F. M. Foster, Drumright.

Okla., Tulsa—Ozark Chemical Co. advises: "Operation of first unit acid plant started Oct. 15, producing 800 tons monthly; second unit now building; will put in operation January, 1926, increasing output to 1600 tons monthly; doing engineering and construction by own forces; Pioneer Tank & Boiler Co., 18 N. Peoria St., Tulsa, furnishing major portion special equipment, doing own leadburning."\*

S. C., Charleston—Fort Sumter Hotel, Willard A. Senna, Mgr., reported, leased pier off S. Battery, foot of King St.; will operate launches to various points about harbor.

S. C., Columbia—Cement Contracting Co., capital \$10,000, incorporated; Frank N. Ehrlich, 817 Gregg St.

S. C., Spartanburg—Tezza Tile Co., Inc., chartered; G. J. Tezza, Joan Tezza.

Tenn., Chattanooga—Tennessee Holst Corp., capital \$25,000, chartered; O. B. Gladish, Foot Walnut St.; J. B. Roberts.

Tenn., Chattanooga—Provident Life and Accident Insurance Co., Robert J. Maclellan, Pres., increased capital, \$500,000 to \$500,000.

Tenn., Knoxville—Chero-Cola Bottling Co., Fred H. Austin, Pres., 917 N. Broadway, plans erecting new plant on E. McCalla Ave.; install equipment; total cost about \$75,000.

Tenn., Knoxville—Bean-Warters Printing Co., S. Gay St., will erect 2-story and basement, brick building at Locust St. and Western Ave.

Tenn., Knoxville—Brye Manufacturing Co., 514 Island Home Pike, capital \$25,000, incorporated; W. C. Brye, A. T. Lacy; manufacture beds for automobiles (Hudson and Essex).

Tenn., Nashville—United States Tobacco Co., 1000 Harrison St., acquired building of the Ford Flour Co. at Tenth Ave. and Harrison St.; will probably use for storage warehouse.

Tex., Abilene—Lydick Roofing Co. of Abilene, capital \$50,000, incorporated, Ned Lydick, Pres., J. M. Hooks, Sec.; also operated plant at Amarillo.

Tex., Amarillo—Rainbow Food Products Co., incorporated; H. H. Orr, W. L. Orr.

Tex., Austin—General Outdoor Advertising Co., Inc., capital \$10,000, chartered; J. H. Gardner, Austin National Bank Bldg.; J. C. Taylor.

Tex., Brownsville—Hicks Rubber Co., Inc., capital \$10,000, chartered; J. T. Pipkin, Marie Stevens.

Tex., Brownsville—El Jardin Hotel Co., capital \$250,000, incorporated; J. M. Nix, H. C. Wood.

Tex., Dallas—Spikes Broomcorn Co., capital \$15,000, incorporated; A. W. Berdon, Geo. W. Spikes.

Tex., Dallas—Midway Pharmacy, Inc., capital \$10,000, chartered; D. H. Coffin, 502 S. Cumberland St.; Mrs. Lena Coffin.

Tex., Dallas—Fishburn Dyeing & Cleaning Co., 3208 Ross St., increased capital, \$150,000 to \$200,000.\*

Tex., Dallas—Paint Spray Equipment Co. incorporated; M. K. Murphy, J. A. O'Connor.

Tex., El Paso—Farrow Fountain Co., capital \$100,000, incorporated; Wm. T. Farrow, 2821 Pershing Drive; Arthur M. Horn.

Tex., Fort Worth—Pangburn Cafeteria Co., capital \$50,000, incorporated; H. T. Pangburn, 1615 6th Ave.; T. G. Rainey.

Tex., Fort Worth—The Lydick Roofing Co., 100 Missouri St., Fort Worth, capital \$75,000, incorporated; Ned Lydick, owner; operated plant at Wichita Falls, with Hugh Lydick, Mgr. and one at Dallas with Willis Lea, Mgr.

Tex., Greenville—Maud Burnett reported will construct 1-story abattoir, 25x60 ft., reinforced concrete; W. R. Ragsdale, Archt., W. Lee St.

Tex., Houston—Oil Well Supplies—J. H. McEvoy & Co., capital \$200,000, J. H. McEvoy, 600 Milby St.; E. R. Mooney.

Tex., Houston—Houston Cleaners and Dyers Assn., Inc., chartered; H. M. Shepherd, 3203 Mt. Vernon; W. O. Turner.

Tex., Houston—Houston Little Theatre, incorporated; Frederick Webster, T. K. Dixon, Jr., 3602 Main St.

Tex., Huntsville—Huntsville Stone Crusher Co. increased capital, \$80,000 to \$100,000.

Tex., Lubbock—Equitable Builders, Inc., capital \$10,000, chartered; E. B. Ribble, Chas. H. Smith.

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Tex., Lufkin—Lufkin Coca Cola Co. let contract to W. P. Berry for \$20,000 brick building on Dozier Ave., 2-story, 50x100 ft.

Tex., San Antonio—Texas Landscape Co. incorporated; N. L. Petrich, 516 Nolan St.; Wm. C. King.

Tex., San Antonio—Tropitex Clothing Co., Inc., capital \$40,000, chartered; J. D. Richie, 641 Drexel St.; Herbert Davis.

Tex., San Angelo—Standard Building & Equipment Co., incorporated; H. O. Taylor, Willie Rowan.

Tex., San Antonio—Walters Automatic Gas Cut-off Co. increased capital, \$20,000 to \$30,000.

Tex., San Antonio—Lone Star Construction Co., capital \$40,000, incorporated; W. T. Montgomery, Alamo Bank Bldg.; L. P. Atmar.

Va., Augusta Springs—Augusta Textile Mills, Inc., capital \$50,000, incorporated; S. C. Elliott, M. Wohlgemuth; manufacture wearing apparel.

Va., Harrisonburg—Shenandoah Shoe Corp., capital \$100,000, reorganized; C. W. Sherman, Carl H. Blaschoff; formerly Crescent Shoe Co. of Reading, Pa.

Va., Norfolk—Mill Supplies—Atlantic Machine Works, Inc., capital \$10,000, chartered; Frank H. Masi, 119 W. 25th St.; J. W. Stickley.

Va., Norfolk—Norfolk Awning & Tent Co., Inc., capital \$10,000, chartered; K. E. Moore, Floyd Hurst.

Va., Norfolk—J. W. Witt Tailoring Co. Inc., capital \$10,000, chartered; B. F. Canter, J. W. Witkowski.

Va., Norfolk—Yellow Parcel Delivery Co., Inc., capital \$20,000, chartered; Wm. H. Sands, Bank of Commerce Bldg.; S. E. Farwood.

Va., Petersburg—Spotless Patterns Corp., capital \$15,000, chartered; Geo. J. Richardson, N. B. Munson; advertising trash receptacles.

Va., Radford—Electricians—Foster-Sembler Corp., capital \$50,000, chartered; Fred L. Foster, H. F. Sembler.

Va., Richmond—M. & M. Pickle Corp., capital \$10,000, chartered; A. L. Cherry, M. V. Mahoney, 2714 E. Franklin St.

Va., Richmond—Sausage—The Visking Corp., capital \$210,000, chartered; Guy B. Hazelgrove, American National Bank Bldg.; C. W. Beale.

Va., Richmond—Tyler Transfer Co., Inc., capital \$25,000, chartered; W. S. Tyler, 2804 Idlewood Ave.; J. K. McNeal.

Va., Vienna—Victory Bottling Works, Inc., capital \$20,000, chartered; Wm. T. Buser, Raymond C. Yost.

Va., Virginia Beach—Contracting—J. Wesley Gardner, Inc., capital \$10,000, chartered; J. Wesley Gardner, P. W. Ackiss, Jr.

W. Va., Clarksburg—Creston Broom Co., Creston Ohio, reported, contemplates moving plant from Creston.

W. Va., Fairmont—F. J. Lewis Manufacturing Co., 2513 S. Robey St., Chicago, Ill., incorporated; Richard A. Poland, 81 Kingwood St.; J. H. Matthews, both Morgantown; manufacture paving materials, chemicals, etc.

W. Va., Hinton—Clifton Forge Ice & Bottling Co., erect bottling plant on Avis St.

### Motor Bus Lines and Terminals

Fla., Tarpon Springs—White Stage Line let contract to Frost Construction Co. of Tampa for bus station on Pinellas Ave., 2-story; under construction.\*

Fla., Wauchula—Harry Leaberry establish motor bus line in connection with Wauchula Hills Development; acquired additional equipment.

Ky., Frankfort—Highway Transportation Co., Inc., 320 Ann St., operate bus line; will purchase 4 buses.

N. Carolina—Hambleton & Co., 10 S. Calvert St., Baltimore, Md., secured option on all bus lines between Raleigh and Greensboro; also negotiating for options on lines operating between Raleigh and Wilson and probably other lines.

N. C., Durham—Carolina Transit Co., capital \$50,000, incorporated; M. E. Hart, R. L. McMillan.

N. C., Newbern—Carolina Truck Transportation Co., capital \$150,000, incorporated; L. P. Sutton, T. L. Sutton.

Va., Lynchburg—O. L. Phillips will extend bus line to Perrowville.

Va., Honaker—Big A Mountain Bus Line, G. W. Lockhart, has permit for passenger bus line between Honaker and Haysi.

Va., Roanoke—Roanoke Rapid Transit Co. has permit to extend bus lines.

W. Va., Bluefield—Pocahontas Transportation Co. has permit for bus line between Pocahontas and State line.

W. Va., Ronceverte—The Burroughs & Kirby Bus Co. applied for permit to operate line serving Ronceverte, Williamsburg and Richwood in Greenbrier and Nicholas Counties.

### Motor Cars, Garages, Filling Stations

Ark., El Dorado—Service Parts Co., capital \$10,000, incorporated; Louis Agee, Jerome Brown.

Ark., Little Rock—Ault & Burden have contract for 1-story building cor. Sixth and Broadway, 100x140 ft.; to be occupied by Madison-Smith Cadillac Co., 524 La. Ave.; Wittenburg, Deloney & Watts, Archts., Southern Trust Bldg.; property owned by Mrs. J. A. Bowman.

Fla., West Palm Beach—Page Bros. let contract to Geo. Mackay & Co. of Ocala for 20-car capacity garage, work in connection with other development at Pageland.

Ga., Atlanta—Walter T. Candler, Box 1482, let contract to H. J. Carr & Co., Candler Bldg., for 3-story, reinforced concrete and brick storage garage, cost between \$200,000 and \$300,000; Ivey & Crook, Archts., Candler Bldg.\*

Ga., Rochelle—W. A. Nipper of the Brown Banking Co., and Charlie Hunt will erect filling station, cor. Ashley St. and First Ave.; leased site.

Ga., Thomasville—Standard Oil Co. acquired site at intersection of Broad St. and Gordon Ave.; will erect filling station.

Ky., London—London Motor Car Co. increasing capital to \$50,000.

Ky., Paducah—Paducah Tire Co., Fourth and Kentucky Ave., acquired adjoining properties; let contract to E. C. Dalton to remodel, converting buildings into one structure; cost \$10,000; D. Harry Jamieson, Archt., Campbell Bldg.

La., New Orleans—E. M. Reynes, 1419 Bourbon St., will erect garage on Canal and Galvez St.; 1-story, 49x180 ft., with wing 60x120 ft., brick, reinforced concrete, fireproof.

La., New Orleans—A. J. Gumina, owner City Hall Service Station, Carondelet and Lafayette St., acquired 4-story building on Poydras St. near Camp, will remodel for modern garage, install two elevators, etc.; A. S. Monts, Archt., 205 Strand Bldg.; soon open bids.

La., New Orleans—Automobile Accessories—Houdaille-Louisiana Co., Inc., chartered; Arthur N. Withers, 3626 Upperline St.

La., New Orleans—Behr Motor Sales Co., Inc., capital \$25,000, chartered; John F. Behr, 8211 S. Claiborne St.

La., New Orleans—Ward's Auto Service Co., capital \$30,000, incorporated; Lawrence Ward, Jean S. Voorhies.

La., Shreveport—George T. Bishop, 618 Market St., will erect addition to present building, reinforced concrete, 1-story, 150x160-ft., cement floors, cement and built up roof, ventilators, steel sash and trim, wire glass, interior and hollow tile, vaults, etc., cost \$40,000; plans ready for bids; Jones, Roessle, Olshner and Wiener, Archts., Ardis Bldg.\*

Miss., Sumner—Sumner Auto Sales Co., capital \$20,000, incorporated; O. W. Pearson, W. D. Crump.

Mo., Farnfeldt—Midway Garage, capital \$15,000, incorporated; C. F. Hanks, J. S. Smith.

Mo., Jefferson City—Cole County Co., capital \$10,000, incorporated; M. S. Murray; Robert E. Holliday.

Mo., Kansas City—Mrs. Etta Scott, 2816 Woodland St., will erect 2-story public garage at 918 Locust St.; estimated cost \$30,000.

Mo., St. Louis—Best Battery & Ignition Service, Inc., capital \$15,000, chartered; S. S. Pomeroy, 7002 Washington St.

N. C., Asheville—The Frank Cox Co., 10 Government St., will erect 3-story, 130x145-ft., reinforced concrete and brick garage, reinforced cement floors, reinforced cement roof, approximate cost \$150,000; install elevator; will open bids for both building and equipment early part of December; address Tench C. Cox, Box 63; building to be occupied by the Richbourg Motor Co., 52 Broadway; Albert C. Wirth, Archt., Jackson Bldg.\*

N. C., Charlotte—E. and W. Motor Co., capital \$50,000, incorporated; George E. Wilson, Jr., C. A. Cochran, Atty., Law Bldg.

N. C., Wilmington—M. C. Borst & Co. (Chrysler Agency), 7 S. Second St., acquired 66x165-ft. site on N. Second St.; will erect \$20,000 sales building, 1 story, fireproof, with sufficient storage space for 100 automobiles.

Okla., Shawnee—Shawnee Auto Service Co., incorporated; W. R. Taggart, Oklahoma City; H. H. Howe, Shawnee.

Okla., Tulsa—Williamson Motors, capital \$10,000, incorporated; M. M. Williamson, 420 N. Main St.

Okla., Tulsa—Tulsa Service Oil Co., capital \$10,000, incorporated; R. E. Forsman, 418 S. College St.; Valjean Biddison.

Okla., Tulsa—Brandes & Garbett let contract to P. J. Hurley, First Natl. Bank Bldg., for \$95,000 garage at Eighth and Cincinnati Sts., 4-story, 100x140-ft., reinforced concrete; to be occupied by Thompson Motor Car Co., 624 E. Fourth St.

Okla., Wapanucka—Savage Motor Co., capital \$15,000, incorporated; Carr P. Collins, Dallas; L. L. Savage, Wapanucka.

Okla., Yale—Triangle Motor Service Co., Inc., capital \$25,000, incorporated; A. W. Wyatt, C. R. Virtue.

S. C., Columbia—Bethea Law Motor & Insurance Co., capital \$10,000, incorporated; P. A. Bethea, W. P. Law.

S. C., Columbia—Standard Oil Co. of New Jersey, 700 Pendleton St., will erect \$10,000 gasoline service station, 20x20 ft., with shed, brick and stucco, concrete floor, metal tile roof; construction by owner; wants prices on millwork, plumbing and electrical work; address Welr R. Goodwin; G. A. Shirley, Const. Engr. (See Machinery Wanted—Millwork, etc.)\*

Tenn., Corryton—Carl McBee and Ned Minton will erect garage and filling station, acquired site.

Tenn., Crossville—G. E. Harrison will erect garage and filling station; plans by Manley, Young and Meyer, Knoxville Bldg., Knoxville.

Tex., Amarillo—International Harvester Co. of Chicago, W. A. Flisk, Mgr., reported, receiving bids for building and service station at Grant St. near Tenth; 3-story, 106x70 ft., reinforced concrete; paved court; and service station, 101x80 ft.; estimated cost \$300,000.

Tex., Beaumont—Convenient Tire Co., Inc., chartered; H. V. Prather, 1593 Calder St.; Fred Aitken.

Tex., Dallas—Littleshock-Braker Co. incorporated; H. F. Little, 2907 Shelby St.

Tex., Houston—Jack Neal Nash Motor Co., capital \$25,000, incorporated; Jack W. Neal, 301 Avondale Ave.; Chas. W. Moody.

Tex., Jacksonville—Adron T. Kearn Botor Co., capital \$25,000, incorporated; W. J. Weatherby; A. T. Kearn.

Tex., Lufkin—A. M. Glass Motor Co., 1619 Hardy St., Houston, acquired site from C. A. Pate; will erect 70x140-ft. service station.

Tex., Port Arthur—Smith-May Motor Co., capital \$100,000, incorporated; Howard M. Smith, 1547 Procter St.; M. J. May.

Tex., San Antonio—Herpel Gillespie Garage, capital \$100,000, incorporated; Ed. M. Herpel, Frank M. Gillespie, Vance Jackson.

Tex., San Antonio—Glenn S. Maverick, Maverick Bldg., let contract to Chas. Briant, Builders Exchange Bldg., for \$25,000 garage at Fourth and Ave. E., 2-story, 71x102-ft., concrete, brick and stucco; Will N. Noonan Co., Archt., Builders Exchange Bldg.

Tex., San Augustine—Redland Motor Co., capital \$36,000, incorporated; F. D. Youngblood, Robert M. Orton.

Tex., San Antonio—Henry Stuart contemplates building garage.

Tex., San Marcos—San Marcos Motor Co. increased capital to \$30,000, changed name from Marshall-Taylor Motor Co.

W. Va., Beckley—Williams Meade Co., Inc., chartered; T. S. Williams, A. G. Meade; acquired the Forbes Motor Co. and changed name.

W. Va., Charleston—Dr. J. Fleetwood Butts, 217½ Capitol St., acquired 25x97-ft. site on Summers St.; will erect 2-story brick building, to be occupied by the White & Black Taxi Co. as office and garage.

### Railways

Fla., Lynn Haven—Berry Collins & Co., 64 Peachtree St., Atlanta, Ga., who are conducting developments at Lynn Haven and Panama City, write the Manufacturers Record that they also plan to build an extension to the Atlanta & St. Andrews Bay Railway about seven miles long from Lynn Haven Junction to Lynn Haven.

Miss., Meridian—S. A. Neville, of Meridian,

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has applied to the Interstate Commerce Commission for authority to build the proposed Meridian & Bigbee Railroad from Meridian to Myrtlewood, Ala., about 50 mi. Contract is reported tentatively awarded to J. A. Price & Co., of Pine Bluff, Ark.

W. Va., Elmore—Guyandot & Tug River Railway Co., a subsidiary of the Norfolk & Western Railway, has applied to the Interstate Commerce Commission for authority to build a line 53 mi. long from Elmore to Wharncliffe, W. Va., to connect the Virginian Railway with the Norfolk & Western as proposed by the lease agreement. W. P. Wiltsee is Ch. Engr., Norfolk & Western, Roanoke, Va.

## Roads, Streets and Paving

### Proposed Construction

Ala., Moulton—State Highway Dept., Montgomery, plans 7 mi. Decatur-Muscle Shoals Highway, from Courtland to Colbert County line; Col. W. A. McCoy, State Engr.

Ark., Hot Springs—See Land Development.

Fla., Apalachicola—City Comm., R. Don McLeod, Jr., City Atty., plans expending \$100,000 for 3 mi. asphalt or concrete street paving; plans installing electric lighting system. See Financial News—Bond Issues Proposed.

Fla., Avon Park—See Land Development.

Fla., Bartow—City, G. J. McNamee, Clk., receives bids Nov. 17 for 75,000 sq. yd. street paving, necessary curbing, grading, drainage and appurtenances, limerock, Bartow clay foundations and sheet asphalt, asphaltic concrete, etc.; plans on file and from E. V. Camp and Associates, Inc., Condit-Engrs., Moreland and DeKalb Aves., Atlanta, Ga., and Peninsular Casualty Bldg., Jacksonville.

Fla., Bonifay—City plans grading and laying cement sidewalks in residence section. Address City Clerk.

Fla., Clearwater—See Land Development.

Fla., Daytona—See Land Development.

Fla., DeLand—See Land Development.

Fla., Dunnellon—City plans street paving, extending water mains and laying storm sewers; cost about \$300,000. Address City Clk. See Financial News—Bond Issues Proposed.

Fla., Eustis—City plans expending \$500,000 for 40-mi. asphalt paving. Address City Clk.

Fla., Fernandina—Nassau County Commrs. plan 2 permanent hard surfaced roads: From Fernandina to Yulee; Fernandina to Amelia Beach; cost \$580,000. N. A. Hotard, Engr., New Smyrna. See Financial News—Bond Issues Proposed.\*

Fla., Flagler Beach—City plans 26 mi. street paving and 5-ft. sidewalks; N. A. Hotard, Civil Engr., New Smyrna.

Fla., Fort Myers—See Land Development.

Fla., Frostproof—Town plans widening and paving streets, cost \$270,000. Address Town Clk. See Financial News—Bond Issues Proposed.\*

Fla., Groveland—See Land Development.

Fla., Jacksonville—See Land Development.

Fla., Jacksonville—City Comm., M. W. Bishop, Clk., plans widening Main St. from Twelfth to Twenty-first.

Fla., Kissimmee—See Land Development.

Fla., Marianna—See Land Development.

Fla., Marianna—City plans 3 mi. street paving, estimated cost \$180,000. Address City Clk. See Financial News—Bond Issues Proposed.

Fla., Melbourne—See Land Development.

Fla., Miami—See Land Development.

Fla., Miami—South Florida Golf & Country Club, S. Pearlman, Executive Sec., 221 E. Flagler St., receives bids Nov. 16 to grade and pave 4 mi. streets in Golf Park subdivision; plans from Daniel E. Clune, Ch. Engr., Administration Bldg., Hialeah, or Res. Engr. Golf Park Subdivision.

Fla., Miami—City Commrs., Hugh Peters, Commr., plan improving 4 mi. Miami Ave. extension from Sixty-second St. to Gratigny road.

Fla., Miami—See Land Development.

Fla., Moore Haven—Glades County Commrs., Dist. No. 11, plan system 16-ft. roads from Moore Haven north to Highlands County line, south of Hendry County line, west to near Hendry County line, oil or asphalt and slag surface; cost about \$550,000; Dist. No. 12 plans road building. See Financial News—Bond Issues Proposed.\*

Fla., Ocala—Marion County Commrs. plan 37 hard surfaced roads, totaling 236 mi., cost

about \$4,000,000. See Financial News—Bond Issues Proposed.

Fla., Okeechobee—See Land Development.

Fla., Orlando—See Land Development.

Fla., Panama City—State Road Dept., Tallahassee, plans expending about \$20,000,000 for Gulf Coast Scenic Highway through Bay County and building 2 bridges at Long Point and St. Andrews.

Fla., Perry—Taylor County Commrs. plan hard surfacing County roads, including State Roads Nos. 19 and 15; cost about \$1,500,000. See Financial News—Bond Issues Proposed.\*

Fla., Pompano—See Land Development.

Fla., St. Augustine—See Land Development.

Fla., St. Petersburg—City plans widening Second Ave. from Fourth St. to tracks Seaboard Air Line Ry.

Fla., St. Petersburg—See Land Development.

Fla., Stuart—City plans street paving and curbing, cost about \$150,000; Richard F. Ensey, City Engr. See Financial News—Bond Issue Proposed.\*

Fla., Tampa—Hillsborough County Commrs., Palm River section, plan paved road from Hillsborough Bay at Palm River, across Bayshore and Riverview roads to Hopewell road, cost about \$80,000. See Financial News—Bond Issue Proposed.

Fla., Tampa—Hillsborough County receives bids Nov. 13 to pave 5 mi. Hillsborough Ave. from Armenia to intersection with Memorial Highway, 6-in. limestone base, 2-in. asphalt top; T. M. Shackelford, Jr., County Atty.

Fla., Tampa—Hillsborough County Commrs. receive bids Nov. 6 to pave 5 streets, including Maple St., Fourth and Texas Ave.; T. M. Shackelford, Jr., County Atty.

Fla., Tampa—See Land Development.

Fla., Titusville—See Land Development.

Fla., Verna—City plans expending \$80,000 to grade and pave streets, provide drainage, electric and water plants. Address City Clk.

Fla., West Palm Beach—Palm Beach County Commrs. contemplate highway from Montreal Highway at Sherman's Point Bridge to Dixie Highway and extending Belvedere road west.

Fla., West Palm Beach—See Land Development.

Fla., Winter Haven—See Land Development.

Ga., Albany—State Highway Dept., East Point, receives bids Nov. 12 for 10 mi. road between Albany and Worth County line, 1-386,000 sq. yd. double surface treatment, sheet asphalt paving; also plans paving northern section Florida Short Route, Dougherty County; W. R. Neel, State Highway Engr.

Ga., Americus—State Highway Dept., East Point, plans paving Dixie Highway from end of pavement of Americus to Lee-Sumter County line, Sumter County, estimated cost \$169,000.

Ga., Canton—Town, T. A. Doss, Clk., receives bids Nov. 17 for 22,500 sq. yd. concrete, vibrolithic, brick, sheet asphalt, asphaltic concrete, rock asphalt, Finley sheet asphalt or Warrenite pavement, 5800 sq. yd. sidewalks, 9900 lin. ft. curbing, 11,500 cu. yd. grading; catch basins and pipe for storm drainage; plans on file and from Knox T. Thomas, Engr., 305 Wynne-Claughton Bldg., Atlanta; E. A. McCandless, Mayor.\*

Ga., Fort Valley—Peach County Commrs. plan road building, cost \$200,000.

Ga., Lumpkin—Stewart County Commrs. plans improving 2 roads: Paving  $5\frac{1}{2}$  mi. State Highway No. 1, between Cusseta and Lumpkin; cost \$272,000; grading 10 mi. Route No. 1 from Louvale to Lumpkin.

Ga., Macon—City plans paving streets in Vineville section. Address City Clk.

Ga., Valdosta—Lowndes County Commrs. plan widening Oak St. road from city limits to National Highway north of Valdosta.

Ga., Waycross—City, W. B. Stovall, Mayor, plans paving Williams St. from A. C. L. crossing to Lee Ave.

Kentucky—State Highway Comm., Frankfort, receives bids Nov. 9 for 2 roads and bridge: Floyd County, grade and drain .911 mi. Paintsville-Prestonsburg, from south end of proposed bridge over Levis Fork at Cliff to corporate limits of Prestonsburg; Knox County, 2 mi. waterbound macadam or bituminous macadam on napped sandstone base; Floyd County bridge over Levis Fork of Big Sandy River, on Prestonsburg-Paintsville road, three 190-ft. and one 70-ft. steel spans, 20-ft. roadway, creosoted wood block floor; reinforced concrete substructure, 104,470 lbs.

reinforcement, 4530 lin. ft. creosoted piling; superstructure, 769,800 lbs. structural steel; plans on file; E. N. Todd, State Highway Engr.

La., Baton Rouge—East Baton Rouge Parish Police Jury plans hard surfacing Perkins road; appropriated \$15,000; also plans sidewalk on Highland road from city limits to university; \$12,000 appropriated. See Financial News—Bond Issues Proposed.

La., Baton Rouge—See Land Development.

La., Lake Charles—City, Harry J. Geary, Mayor, plans sidewalk improvement, cost \$10,000. See Financial News—Bond Issues Proposed.

Louisiana—Louisiana Highway Comm., Baton Rouge, receives bids Dec. 1 for 2 gravel roads: Jackson Parish, 9.60 mi. gravel Chatham-Ruston Highway, from Chatham to Vernon; LaSalle Parish, 3.40 mi. gravel Olla-Jean Highway, from point near Olla through Summerville; plans on file; W. B. Robert, State Highway Engr. (See Machinery Wanted—Gravel.)

La., Vidalia—Concordia Parish Police Jury will let contracts in Dec. for 25 mi. graveled roads.

La., White Castle—Town plans hard surfacing streets, laying and repairing walks, cost about \$7000. See Financial News—Bond Issues Proposed. Address Town Clerk.

Md., Baltimore—City, Howard W. Jackson, Mayor, appropriated \$150,000 to pave Mount Royal Drive through Druid Hill Park or Wyman Drive, from Poe Monument, Twentieth St. to Remington Ave.

Miss., Gulfport—Board of Commrs., Jos. W. Milner, Mayor, receives bids Dec. 1 for 145,000 sq. yd. street paving, 53,000 sq. yd. concrete sidewalks, 2300 sq. yd. street and driveway crossings, 16,700 lin. ft. plain concrete curb, 132,000 lin. ft. concrete curb and gutter, 53,800 lin. ft. 4 to 30-in. vitrified or concrete sewer pipe, catch basins, manholes, 15,000 cu. yd. grading, 10,000 lbs. reinforcement steel; Hobart D. Shaw, City Engr.

Miss., Lucedale—State Highway Dept., Jackson, receives bids for  $11\frac{1}{2}$  mi. road from Pascagoula River to Stone County line.

Mo., Cape Girardeau—City plans improving Mill St. Address City Clk.

Mo., Louisiana—City plans grading, paving and curbing roadway on Third, South Carolina and Main Sts. Address City Clk.

Mo., Neosho—City plans improving High St., also grading and laying curb and gutter on Washington and College Sts. Address City Clerk.

Mo., Springfield—City contemplates paving Nettleton Ave. between Nichols and Calhoun Sts. Address City Clk.

Mo., Springfield—City plans curbing New St. and paving and curbing Jefferson St. Address City Clk.

Mo., St. Joseph—City plans grading and paving with Portland cement concrete East and West Alley; also grading Sacramento and Michel Sts. Address City Clerk.

Mo., St. Joseph—City plans grading North and South Alley, between 24th and 25th Sts.; also paving Moss St. with Portland cement concrete, from 7th to St. Joseph Sts. Address City Clerk.

Mo., St. Louis—Board of Public Service approved expenditure of \$137,124 to pave 12 streets with cement concrete, asphaltic concrete, brick, granite block, etc.

North Carolina—State Highway Comm., Raleigh, receives bids Dec. 8 for 12 roads and 2 bridges: Cumberland County, grading and bridges Route 22, between Fayetteville and Lumberton; grading and bridges, Route 22, between Fayetteville and Dunn; Lee County, top soil, sand clay and gravel, from Canford toward Jonesboro; Wake County, 18-ft. hard surface, Route 50, from Cary to Apex; Davidson County, 18-ft. hard surface, Route 63, from Lexington to Forsyth County line; Rockingham County, 16-ft. hard surface, Route 77, from Madison to Stokes County line; Richmond County, 18-ft. hard surface, Route 50, from Rockingham to South Carolina line; paving, Route 51, from Rockingham to Ellerbe; Alexander County, paving, Route 67, from Taylorsville to Wilkes County line; Stokes County, structure only, Route 77, from Walnut Cove to Rockingham County line; Ashe and Watauga Counties, gravel surfacing and structures, Route 69, between Boone and Jefferson; Jackson County, 16-ft. hard surface, Route 10, from Silver to Haywood County line; Swain County, 16-ft. hard surface, Route 10, between Almond and Bryson City; Carteret County, bridge between Morehead City and Beaufort, Route 10.

N. C., Durham—Durham County Commrs. plan grading Leesville-Holloway road, from

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junction Leesville and Raleigh roads toward Holloway road.

N. C., Elizabeth City—Pasquotank Highway Comm. may receive bids in Dec. for Eslip and Salem roads, in Salem Township; plans paving 2½ mi. River road, from Newland Methodist Church; J. R. Foard, County Engr.

N. C., Hendersonville—See Land Development.

N. C., Shelby—See Land Development.

Okla., Ada—Pontotoc County Commrs. contemplate road building, cost \$425,000. See Financial News—Bond Issues Proposed.

S. C., Bamberg—State Highway Dept., Columbia, receives bids Nov. 24 for Bamberg-Elkhardt link of Columbia-Savannah Highway and probably for Elkhardt-Hampton road; Samuel McGowan, Ch. Highway Engr.

S. C., Charleston—See Land Development.

S. C., Walhalla—State Highway Dept., Columbia, plans improving 3 roads in Oconee County: Pave 9 mi. road from Clemson College to intersection of Highway No. 2 with No. 17 beyond Seneca; treat with gravel and cement mountain road; topsoil road near Westminster; total cost about \$400,000.

Tenn., Benton—Polk County Court appropriated \$22,750 for 4 roads: From Ducktown Station, via Ducktown, to Isabella; Isabella to Copperhill, through Coletown; Archville to Ocoee Lake; Farmer road to Harbuckle. Address County Commrs.

Tenn., Decatur—Meigs County Commrs. plan highway between Decatur and Roane County line.

Tenn., Erwin—Unicoi County and Dept. of Highways and Public Works, Nashville, plan highway along Spring Creek to North Carolina State line.

Tenn., Nashville—City, Hillary E. Howse, Mayor, contemplates widening Eighth Ave. from Church to Broadway.

Tenn., Nashville—State Highway Dept. plans building concrete boulevard to base of Stone Mountain; \$35,000 available.

Texas—State Highway Dept., Frank V. Lanham, Chmn., Austin, receives bids Nov. 20 to apply road oil treatment on 2 roads: 51 mi. State Highway No. 9 between Lubbock and Plainview; 64 mi. State Highway No. 9, between Plainview and Canyon, in Lubbock, Hale, Swisher and Randall Counties; R. J. Hank, State Highway Engr.; Henry J. Cox, State Maintenance Engr.

Tex., Angleton—Brazoria County, Dist. No. 26 plans road building; P. L. Richens, County Commr. See Financial News—Bond Issues Proposed.

Tex., Angleton—Brazoria County, J. T. Loggin, County Judge, receives bids soon for 6.59 mi. crushed stone and bituminous surface State Highway No. 19, from Angleton to Bonnie, alternate bids on 3¼-in. asphalt; H. W. Munson, County Engr.

Tex., Austin—State Highway Comm., Frank V. Lanham, Chmn., plans 5.35 mi. grading and bridges on State Highway No. 29, Jollyville road from intersection Austin-Watters Park road to Williamson County line; R. J. Hank, State Highway Engr.

Tex., Beaumont—City, Ollie J. Bloyd, Mgr., plans street paving; cost \$400,000. See Financial News—Bond Issues Proposed.

Tex., Beaumont—Jefferson County Commrs. contemplate building about 18 mi. road from McFaddin's beach to High Island; B. B. Johnson, County Judge.

Tex., Brownsville—Cameron County, O. C. Dancy, County Judge, plans grading and bridges on 24.5 mi. State Highway No. 12-D, between Barrera and Point Isabel, estimated cost \$61,000; W. O. Washington, Engr.

Tex., Corsicana—City, J. S. Murchison, Mayor, plans street paving, water and sewer improvements, etc., cost \$300,000. See Financial News—Bond Issues Proposed.

Tex., Dallas and Fort Worth—State Highway Comm., Frank V. Lanham, Chmn., Austin; F. H. Alexander, Dallas County Judge; Emmett Moore, Tarrant County Judge, plan widening State Highway No. 1, Dallas-Fort Worth Highway, from 18 to 24 ft.

Tex., Dallas—Dallas County Commrs. plan improving 8 roads: Dallas-Fort Worth pike; belt line roads; resurface and probably widen West Dallas Pike, improve roads to Irving, Carrollton, Kaufman and Hutchins; graveling cut-off roads; cost \$4,000,000 to \$6,000,000; J. W. Slaughter, County Commr. See Financial News—Bond Issues Proposed.

Tex., Falfurrias—Brooks County, J. A. Brooks, County Judge, receives bids Dec. 4 for 2 roads: 14.182 mi. 18-ft. concrete pavement, State Highway No. 12; 2.52 mi. gradings, bridges and 18-ft. concrete pavement,

State Highway No. 12; Randolph Harrison, County Engr.\*

Tex., Georgetown—City, John M. Sharpe, Mayor, plans street paving, etc.; cost \$45,000. See Financial News—Bond Issues Proposed.

Tex., Goliad—Goliad County Commrs. Goliad Precinct plan hard surfacing highways, cost about \$250,000; Charco and Weesatche Precincts plan highway building. Address County Judge. See Financial News—Bond Issues Proposed.

Tex., Houston—City, O. F. Holcombe, Mayor, received low bid from Gulf Bitulithic Co., Goggan Bldg., Houston, at \$33,806 to pave Louisiana Ave. and at \$13,705 to pave Rusk Ave.

Tex., Huntsville—Walker County, A. T. McKinney, County Judge, receives bids Dec. 4 for 18.01 mi. grading and bridges on State Highway No. 32.

Tex., Lagrange—Fayette County, Theo. W. Leuders, County Judge, receives bids Dec. 4 for grading and bridges on 8.468 mi. State Highway No. 71; R. E. Schiller, Engr.

Tex., Newton—Newton County Commrs. plan 1200 ft. highway between proposed ferry on Sabine River, near Deweyville, and Orange and Newton County highway, also two 50-ft. bridges.

Tex., San Antonio—City, John W. Tobin, Mayor, plans widening and extending Villita St.; build steel and concrete bridge across San Antonio River; cost about \$30,000; I. Ewig, City Engr.

Tex., Sherman—City, O. J. S. Ellingson, Mgr., plans about 7¼ mi. paving, cost about \$100,000. See Financial News—Bond Issues Proposed.\*

Tex., Sinton—San Patricio County, J. C. Russell, County Judge, plans 2.9 mi. State Highway No. 12, between Portland and Corpus Christi causeway, 2500 lin. ft. 18-ft. concrete surface, 1-in. rock asphalt top, balance with mudshell surface, estimated cost \$28,000; F. M. Percival, Engr.

Tex., Slaton—City, S. F. King, Mayor, plans 20 blocks street paving, cost \$100,000. See Financial News—Bond Issues Proposed.

Tex., Tyler—Smith County, W. D. Pace, County Judge, plans 48 mi. gravel and hard surface on State Highways, estimated cost \$1,500,000; D. K. Caldwell, Engr. See Financial News—Bond Issues Proposed.

Va., Christiansburg—Montgomery County Commrs. contemplate 14 mi. Lee Highway from Christiansburg to Elliston.

Va., Danville—City plans paving Ridge St. from Grove to Main and West Thomas, Gray, Washington and Girard Sts.; C. L. Scott, City Engr.

Va., Martinsville—City plans street paving, cost \$60,000. Address City Clk. See Financial News—Bond Issues Proposed.

Va., Portsmouth—City, J. P. Jervey, Mgr., plans expending about \$300,000 to improve W. High St.; L. G. White, Mayor.

W. Va., Huntington—City Commrs. receive bids Nov. 16 to grade, curb and pave Enslow and Twelfth Ave.; plans on file and from A. B. Maupin, City Engr.; Homer L. Yeich, Commr. of Streets and Sewers.

W. Va., Morgantown—Monongalia County Court, Thomas G. Keenan, Pres., receives bids Dec. 7 to grade and hard surface 2 roads: 1.5 mi. bituminous macadam Morgantown-Fairmont, from Marion-Monongalia County line, east via Smithtown; 1.5 mi. bituminous macadam Morgantown-Fairmont, from Morgan-Clinton Dist. line south via Uffington; plans from County Clk., and A. J. Barittell, County Road Engr.

#### Contracts Awarded

Ark., Little Rock—City Comm. let contract to M. D. L. Cook, Home Insurance Bldg., Little Rock, at \$127,013, for 20 blocks Warrenite on 6-in. concrete base paving.

Fla., Auburndale—City, W. B. Brewer, Clk., let contract to West Construction Co. and W. P. McDonald Construction Co., Lakeland, at \$320,000 for 50,000 sq. yd. street paving.\*

Fla., Ocoee—City let contract to J. B. McCrary Engineering Corp., Atlanta, Ga., at about \$94,000 for 35,944 sq. yd. street paving.

Fla., Dunnellon—City let contract to Wm. Kehoe & Son, Pensacola, at \$60,000, for sidewalks on principal streets.

Fla., Palatka—State Road Dept., Tallahassee, let contract to L. M. Gray, New Smyrna, at \$91,100 for 6.27 mi. 8-in. Florida Ilmerock base on Road No. 3, Putnam County.\*

Fla., Sarasota—Monongahela Construction Co., Home Savings Bank Bldg., Fairmont,

W. Va., awarded contract for 30 mi. road on west coast of Florida, near Sarasota.

Fla., West Palm Beach—Mizner Development Corp. let contract to Andrews Asphalt Paving Co., Hamilton, Ohio, at about \$800,000 for about 20 mi. asphalt paving in Plats 5 and part of 3, east of canal, known as El Rio.

La., De Ridder—City Comm. let contract to Martin & Riling, Lake Charles, for 14 blocks paving.

Ga., Cartersville—City, H. C. Nelson, Mayor, let contract to Sam E. Finley, 212 W. North Ave., Atlanta, at \$75,000 for 24,137 yds. concrete base, asphalt top pavement.\*

Ga., Waycross—State Highway Dept., East Point, let contract to Sam E. Finley, 212 W. North Ave., Atlanta, for 30 mi. bituminous surface treatment, Ware County.

Miss., Laurel—City let contract to Doyle E. Valentine at about \$6000 to resurface brick streets with cement.

Miss., Louisville—State Highway Dept., Jackson, Miss., let contract to Sam B. Boyd, Columbia, at \$89,000 to grade and drain 14 mi. Philadelphia-Louisville road in Winston County.

Miss., Waynesboro—W. R. Dyess awarded contract at \$115,499 for 18 mi. Mississippi Valley Highway from Lang Creek, south of Waynesboro, to State Line, Miss.

Md., Cumberland—State Roads Comm., 601 Garrett Bldg., Baltimore, let contract to Tri-State Engineering Co., Cumberland, at \$98,417 for 3.49 mi. concrete from Cresaptown to McCool.\*

N. C., Bryson City—Swain County Commrs. let contract to R. H. Wright, Jr., for 15 mi. concrete road in county.

Okla., Chandler—City let contract to H. L. Cannady Co., 1424 E. 4th St., Tulsa, at \$104,209, to complete paving in business dist.; Benham Engineering Co., Const. Engrs., 512 Gumbel Bldg., Kansas City, Mo.\*

S. C., Abbeville—Abbeville County Highway Comm. let contract to Charles Branyon to top soil 2 mi. Zarline road, Keowee section, from Douglass Mill road to Due West road.

S. C., York—York County Permanent Road Comm., J. H. Saye, Chmn., Sharon, let contract to John L. Hubbard, Empire Bldg., Knoxville, Tenn., to hard surface 2 roads: 5.58 mi. York-Sharon, \$175,160; 6.5 mi. York-Guthrieville, \$181,461.\*

Tex., Belleville—State Highway Dept., Austin, let contract to Winder Bros., Austin, at \$76,257, for 16.96 mi. grading and bridges on State Highway No. 36, Mill Creek to Washington County line.\*

Tex., Laredo—Webb County Commrs., A. Winslow, County Judge, let contract to Southwest Bitulithic Co., Gunter Bldg., San Antonio, at \$18,670, for 1¼ mi. road between paved streets, Laredo and south end Webb County line.

Tex., Linden—Cass County Commrs. let contract to B. F. Brooks Construction Co., 327 Slaughter Bldg., Dallas, at \$55,370, for 5.64 mi. grading and bridges on State Highway No. 8, from Douglas south.\*

Va., Portsmouth—City, J. P. Jervey, Mgr., let contract to E. P. Lindsay, 312 King St., Portsmouth, at \$15,250 for concrete paving on First Ave. between Leckie and High St., West Park View; also storm drains, etc.

W. Va., Beckley—E. C. Cavin, Charleston, awarded contract for 2 mi. road between Tams and Stotesbury, Raleigh County.

W. Va., Charleston—State Road Comm. let contract to A. Keathly, Professional Bldg., Charleston, at \$74,455 for 5 mi. road between Kanawha City and Marmet, North and South State Route No. 2.

W. Va., Charleston—City, H. C. Walker, Mgr., let contract to Burke & Barger, Dixie St., Charleston, at \$7000 for street paving.\*

#### Sewer Construction

Ark., Hot Springs—See Land Development.

D. C., Washington—District Commrs. let following contracts for seven systems of sewers: to W. F. Brenizer Co., 101 New York Ave., N. E.; for 3 systems; Wm. A. Pate, Jr., Rockville, Md.; for 2 sewers; Joseph A. Forbes, 1708 Third St., N. E.; and Adam McCandlish, 1215 Harvard St., N. W.\*

D. C., Washington—Public Service Comsn., Munsey Bldg., Baltimore, approved application of Washington Suburban Sanitary Comsn. to issue \$300,000 bonds for extension of water and sewer system in Tacoma Park, Chevy Chase and other suburbs of Washington.

D. C., Washington—W. F. Brenizer Co.,

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101 New York Ave., N. E., low bidder for sewer in northeast section.

Fla., Avon Park—See Land Development.  
 Fla., Clearwater—See Land Development.  
 Fla., Daytona—See Land Development.  
 Fla., Dunnellon—See Roads, Streets, Paving.  
 Fla., Groveland—See Land Development.  
 Fla., Homestead—See Land Development.  
 Fla., Jacksonville—See Land Development.  
 Fla., Kissimmee—See Land Development.  
 Fla., Miami—See Land Development.  
 Fla., Ocoee—J. B. McCrary Engineering Corp., Atlanta, Ga., has contract for sewer system, estimated cost \$26,606.  
 Fla., Okeechobee—See Land Development.  
 Fla., Orlando—See Land Development.  
 Fla., St. Augustine—See Land Development.  
 Fla., Stuart—City voted bonds for sewers. See Financial News—Bond Issues Proposed.  
 Fla., Tampa—See Land Development.  
 Fla., Titusville—See Land Development.  
 Fla., West Palm Beach—See Land Development.  
 Fla., West Palm Beach—City Comsn. will receive bids Dec. 8 for \$1,000,000 storm and sanitary sewer program; Fuller & McClintock, 170 Broadway, New York, Engr.\*  
 Fla., Winter Haven—See Land Development.  
 Ga., Canton—See Roads, Streets, Paving.  
 La., Lafayette—See Financial News—Bond Issues Proposed.  
 La., Lake Charles—City. Charles Geary, Mayor, contemplates voting on bonds for sewer and parks improvements. (See Financial News—Bond Issue Proposed.)  
 Md., Baltimore—Board of Awards let contract to Natale Martell, 417 S. Eden St., for Herring Run interceptor sanitary sewer No. 226; Milton J. Ruark, Sewerage Engr., 311 Courtland St.\*  
 Miss., Gulfport—See Road, Streets, Paving.  
 Mo., Joplin—See Land Development.  
 Mo., Kansas City—City let contract to T. P. Thompson for sewer in Seventy-first St. and to Howard A. Williams, 4230 Troost St., for sewer in St. John and Independence Sts.  
 Mo., Moberly—City may vote on bonds. See Financial News—Bond Issue Proposed.  
 Mo., Sweet Springs—City contemplates bond issue. See Financial News—Bond Issues Proposed.  
 N. C., Four Oaks—See Water Works.  
 N. C., Hendersonville—See Land Development.  
 N. C., Shelby—See Land Development.  
 Okla., Bethany—See Water Works.  
 Okla., Frederick—See Water Works.  
 Okla., Tulsa—City received low bid from E. G. Fike & Co., Nebraska Bldg., for sewers in City View Hill Addition.\*  
 S. C., Charleston—See Land Development.  
 Tenn., Chattanooga—S. P. Henderson, 4602 Alabama Ave., has contract for sewers in Bellview and Oakview sections.  
 Tex., Beaumont—City votes Dec. 12 on bonds for sewers and parks; Ollie J. Bloyd, Mgr. See Financial News—Bond Issues Proposed.  
 Tex., Corsicana—See Water Works.  
 Tex., Dallas—James Contracting Co., S. W. Life Bldg., has contract at \$12,479 for sewer improvements; E. A. Kingsley, Engr.  
 Tex., Houston—Houston Construction Co., 201 Standard Lithograph Bldg., has contract for sewers on Sixth St. and Chas. K. Horton, 2202 Clay St., contract for sewers on La Branch St.; O. F. Holcomb, Mayor.  
 Tex., Port Arthur—City Comsn. let contract to Howard Kenyon Dredging Co. for dredging, deepening and widening ditches along Zwolle Blvd.\*  
 Tex., San Angelo—Municipal Excavator Co., 200 E. Main St., Oklahoma City, Okla., general contractors for sewer system, advises has sublet the following: for sewer pipe to W. S. Dickey Clay Mfg. Co., Texarkana, Tex., and San Antonio Sewer Pipe Works, Bedell Bldg., San Antonio; for cement to Great Western Portland Cement Co., 15 W. Tenth St., Kansas City, Mo.; other materials not yet purchased; equipment furnished by company. (See Machinery Wanted—Drag Line; Pump; Stone Screens; Washing Plant.)  
 Va., Portsmouth—City, J. P. Jervey, City Mgr., contemplates constructing sewers.  
 W. Va., Charleston—See Land Development.

### Shipbuilding Plants

La., New Orleans—Todd Drydock & Construction Co., 25 Broadway, New York, reported, plans expending \$750,000 for general ship repair plant with dry docks; will probably acquire site on the Mississippi River.

Md., Salisbury—The Smith & Williams Co., capital \$425,000, incorporated; John Smith, Pres.; taken over firm of Smith & Williams, shipbuilding yards; will continue existing business.

### Telephone Systems

Florida—Postal Telegraph-Cable Co., G. W. Ribble, Gen. Supt., Southern Div., Atlanta, Ga., advises: "Have completed addition to plant, practically doubled facilities within the state and additional wire will be ready for service by first of year; erecting 2-story building at Miami; additional branches are being opened at Palm Beach, Daytona Beach, Tampa and Jacksonville; establishing offices at Melbourne, Lake Worth, Hollywood, Coral Gables, Starke, Webster, Winter Garden, Haines City, Winter Haven, Auburndale, Tallahassee and other points; fitting up main office at St. Petersburg, enlarging offices at Tampa, Jacksonville and West Palm Beach."

Fla., Lakeland—Peninsular Telephone Co., Tampa, Fla., let contract to A. Logan, Lakeland, for 3-story exchange building, 60x80-ft., reinforced concrete foundation, steel erected, complete steel frame, brick veneer on hollow tile, two floors mastic, one floor maple; built up roof; use metal casings, interior tile, metal doors, ventilators, steel sash and trim, wire glass, etc.; plumbing installed by Watts Plumbing Co., Lakeland; estimated cost building and equipment \$80,000.\*

Tex., Fort Worth—Southwestern Bell Telephone Co., main office St. Louis, Mo., let contract to Fort Worth Wrecking Co., 306 S. Main St., to raze building at Eleventh and Throckmorton Sts., the site for new exchange building; plans call for 3-story and basement structure, 70x95 ft., steel and concrete, fireproof; will also convert Lamar exchange from manual to machine switching; Harry G. Brickhouse, local Mgr., 211 N. Tenth St.; present work included in improvement program involving expenditure of more than \$2,000,000.

Tex., Houston—Southwestern Bell Telephone Co., main office St. Louis, Mo., has permit for annex at San Jacinto St. and Capitol Ave., cost \$179,500.\*

### Textile Mills

Ga., Atlanta—Lullwater Mfg. Co., Walter T. Candler, Pres., Candler Bldg., reported to enlarge plant; wire from company states: "Garment factory being doubled; machines purchased from Singer Sewing Machine Co., 149 Broadway; fabrics will be supplied by our cotton mills at East Point and Thomson."

Ga., Columbus—Columbus Mfg. Co., 18 10th St., N., Highland, will erect \$40,000 addition to plant; enlarge cloth room 33 1-3%, brick, cement floor; install elevator; Williams Lumber Co., Contrs., 13th St.

Ga., Newnan—McIntosh Mills will erect 192x75-ft. addition to mill; install 5000 spindles and complementary machinery.

N. C., Belmont—Chronicle Mills, A. C. Lineberger, Pres., reported to enlarge plant, erect addition 80x100 ft.; 2 stories; cost \$200,000; install 5000 spindles, 31 carders and 24 comb-ers.

N. C., Burlington—National Hosiery Mills, Inc., capital \$50,000, incorporated; Walter L. Anderson, Edwin W. Lasley.

S. C., Glendale—Lockwood, Greene & Co., Engrs., Charlotte, N. C., reported let contracts costing \$40,000 for installing electric group drives in Glendale Mill; contract for motors and generators let to Westinghouse Electric Co., East Pittsburgh, Pa.; for wiring to Huntington and Guerry Electric Co., 136 Hampton Drive, Spartanburg; for belting and chains to Link-Belt Co., 300 W. Pershing Rd., Chicago, Ill.; plans call for water wheel and generator capable of generating 900 h.p.\*

Tex., Sherman—Sherman Kiwanis Club, John Livingston, reported interested in knitting mill.

### Water Works

Ala., Tuscaloosa—City let contract to Central Foundry Co., Holt, for 2 miles of water mains in University Place, cost \$12,000.

Ark., Hot Springs—See Land Development.  
 Ark., Little Rock—Roe Arc Water Co., A. C. Curtis, Mgr., E. Ninth St., will rebuild plant burned at loss of \$40,000.

Ark., Prairie Grove—C. M. Sherman and J. P. Harris interested in water works system.

Fla., Avon Park—See Land Development.  
 Fla., Clearwater—See Land Development.  
 Fla., Daytona—See Land Development.  
 Fla., Dunnellon—See Roads, Streets, Paving.

Fla., Frostproof—Town voted \$85,000 water works bonds. Address The Mayor.\*

Fla., Groveland—See Land Development.  
 Fla., Homestead—See Land Development.  
 Fla., Jacksonville—See Land Development.  
 Fla., Kissimmee—See Land Development.  
 Fla., Maitland—City voted \$40,000 water works bonds. Address the Mayor.  
 Fla., Miami—See Land Development.  
 Fla., Okeechobee—See Land Development.  
 Fla., Orlando—See Land Development.  
 Fla., St. Augustine—See Land Development.  
 Fla., St. Petersburg—City, R. E. Ludwig, Director of Public Utilities, let contract to S. L. Hughes for sinking well at Mirror Lake and one at Fifty-second St.; to Marshall & Powers for well at Round Lake.\*  
 Fla., Tampa—See Land Development.  
 Fla., Titusville—See Land Development.  
 Fla., Verna—See Road, Streets, Paving.  
 Fla., West Palm Beach—See Land Development.

Fla., Winter Haven—See Land Development.

Fla., Winter Park—Pittsburgh-Des Moines Steel Co., Curry Bldg., Pittsburgh, Pa., is erecting 50,000 gal. elevated steel tank in addition to present tanks.\*

La., Baton Rouge—See Land Development.  
 La., Kenner—City, Emile Deshantreaux, Mayor, received low bid from Caldwell Bros., 816 Howard Ave., New Orleans, for 12 divisions of water works improvements.

La., Lafayette—City considering construction of \$85,000 filtration plant and sewer system. See Financial News—Bond Issues Proposed.

La., Welsh—Town, John W. Armstrong, Mayor, receives bids Nov. 17 for water works improvements. (See Machinery Wanted—Water Works.)

Md., Annapolis—City plans voting Dec. 14 on \$160,000 water works bonds; Allen B. Howard, Mayor.\*

Md., Baltimore—Board of Awards receives bids Nov. 12 for general repairs to Mt. Royal pumping station. (See Machinery Wanted—Building Repairs.)

Md., Salisbury—J. B. Ferguson Co., Hagerstown, has contract for building pumping station and for piping.\*

Mo., Jefferson City—Slate, Patterson and Smith, Jefferson City, have contract for stone work for Capital City Water Co.'s plant on W. Main St.\*

Mo., Sweet Springs—City contemplates bond issue. See Financial News—Bond Issue Proposed.

N. C., Greensboro—Carolina Contracting Co., Jefferson Bldg., has contract for repair work on pumping plant.

N. C., Four Oaks—City, N. H. Barber, Clk., votes Dec. 8 on \$32,000 water and \$38,000 sewer bonds.

N. C., Hendersonville—See Land Development.

N. C., Murphy—Town let contract to The J. B. McCrary Co., Atlanta, Ga.; will expend \$30,000 for filter plant; 500,000 g.p.d. capacity.

N. C., Pinebluff—Town, Levi Packard, Clk., will expend \$30,000 for extensions and improvements to water works, 16x20 ft. pump house, brick, 1 story; 500 gal. p.m. capacity; install 45 h.p. oil engine, speed gear and centrifugal pump; 100,000 gal. concrete reservoir; Virginia Engineering Co., Engrs., Richmond, Va., Mutual Bldg.

N. C., Shelby—See Land Development.

Okla., Altus—City contemplates installing water supply; cost \$790,000; Benham Engineering Co., Consit. Engrs., 512 Gumbel Bldg., Kansas City, Mo.

Okla., Bethany—City voted \$45,000 water works and \$25,000 sewer bonds. Address the Mayor.

Okla., Blanchard—Town, H. J. Slack, Mayor, receives bids Nov. 4 for water-works system; Gantt-Baker Co., Inc., 1116 W. Main St., Oklahoma City, Consit. Engrs.

Okla., Frederick—City votes Nov. 3 on \$74,000 water works and sewer bonds; Ben-

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



ham Engineering Co., 512 Gumbel Bldg., Kansas City, Consult Engrs.

Okla., Tulsa—Water Improvement District No. 5, Tulsa County, approved plans and specifications for distribution system, approximately 25 miles of 4-in., 10-in. Matheson joint pipe; Holway Engineering Co., Engrs., 503 Wright Bldg.

S. C., Greer—City let contract to Boyd & Goforth, Charlotte, N. C., for construction of 400,000 gal. reservoir, reinforced concrete; cost \$12,000.\*

Tenn., Nashville—City, Hilary E. Howse, Mayor, reported contemplating improvements to water works system, including sunken reservoir on Love Circle Hill.

Tex., Corsicana—City, J. S. Murchison, Mayor, will soon vote on \$300,000 for water, sewer and street improvements.

Tex., Corpus Christi—City let contract to Sumner-Sollitt Co., Natl. Bank of Commerce Bldg., San Antonio, for water filtration plant, cost \$43,263.

Tex., Fort Worth—Trinity River Water Conservation and Improvement Assn. of Wise County organized with J. F. Lillard, Pres., Bridgeport; to create reservoir on West Fork of Trinity River.\*

Tex., Houston—E. K. High, West Bldg., has contract at \$15,300 for water mains.

Tex., Marshall—East Texas Public Service Co plan improvements to water works system, install underground cistern of 75,000 gals. capacity and overhead cistern of 25,000 gals. capacity.

Tex., Mt. Pleasant—City contemplates constructing water works system. See Financial News—Bond Issues Proposed.

Tex., Sherman—City, O. J. S. Ellington, Mgr., is having preliminary surveys made for water works.

Tex., Teague—City defeated \$45,000 bond issue. Address The Mayor.\*

Va., Martinsville—Town plans improving water works, cost \$45,000. Address City Clk. See Financial News—Bond Issues Proposed.

W. Va., Charleston—See Land Development.

### Woodworking Plants

Ark., Little Rock—The Little Rock Furniture Co., 1498 E. Second St., will erect \$12,000 addition to factory.

Fla., Okeechobee—Johnston & McNeill will erect plant to manufacture portable houses; acquired site.

Fla., Plant City—Warnell Crate Co., Albert Schneider, Sec., rebuilding burned plant, 60x120 ft., wood and corrugated iron, wood floors; install planers, tenon, nailing machines, rounders, couplers, etc., all purchased; manufacture heads for fruit and vegetable containers, daily output 30,000 pieces.\*

La., Monroe—Monroe Manufacturing Co., capital \$10,000, incorporated; C. A. Allen, H. M. Venable; manufacture caskets, etc.

Miss., Jackson—Martin-Parry Corp., J. A. Calahan, Gen. Mgr., York, Pa., may erect \$200,000 plant in northern suburbs of city, install woodworking machinery and equipment; manufacture automobile bodies; Illinois Central R. R. will lay sidings to plant.\*

Mo., Hannibal—The Outdoor Furniture Manufacturing Co., capital \$25,000, incorporated; Albert Hoffman, Henry Hoffman.

Mo., Joplin—H. N. Van Fleet, Carthage, Mo., will rebuild Southwestern Sash & Door Co., burned plant at B and Maiden Lane; one-story, 100x200-ft., tile and brick, oak floor, built-up roof, concrete foundation; wants prices on hollow tile, metal doors, hardware, etc.\*

Mo., Jefferson City—Gundelfinger Wood Products Co., capital \$10,000, incorporated; W. E. Gundelfinger, H. B. Gundelfinger.

Mo., New Madrid—New Madrid Hardwood Co., capital \$15,000, incorporated; West Dawson, V. A. Miller.

Mo., St. Louis—The Gyptyle Co., Inc., chartered; Edwin DeNomy Brockmeyer, 4972 Itasca St.

N. C., Boone—Woodcraft Novelty Co., capital \$100,000, incorporated; D. B. Bingham, S. E. South.

S. C., Florence—Carolina Veneer and Lumber Co., capital \$30,000, incorporated; Lusius Taylor, W. D. Tyler.

Tenn., Memphis—Fisher Body Corp., Gen. Motors Bldg., Detroit, Mich., Wm. A. Fisher, Pres., reported to expend \$2,000,000 on plant additions, double capacity; manufacture automobile bodies. Company wires: "J. A. Utley, 718 Penob. Bldg., Detroit, Mich., Const. Engr.; R. L. Sultzeley Heating Co., 246 W. Larned St., Detroit, Mich., Const. Engr.; Johnson Larsen & Co., 693 Monroe St., Detroit, Mich., heating; Virginia Bridge & Iron Co., Memphis, steel."

## FIRE DAMAGE

Ala., Mobile—Plant and warehouse of Magnolia Compress Co., Water St.; loss \$62,500.

Ark., Gurden—Dance hall and garage owned and operated by S. C. McKee.

Ark., Little Rock—Roe Arc Water Company's plant on E. Ninth St.; loss \$25,000.

Ark., Little Rock—County Hospital's nurses' quarters near Little Rock; loss \$6000; Dr. G. K. Mason, Supt.

Ark., Searcy—J. E. Fox's gin; loss \$12,000.

Fla., Coconut Grove—Garage and residence of D. F. F. Christiance on Leafy Way.

Ga., Atlanta—Coca Cola Bottling Works, 460 Edgewood Ave.; loss \$200,000.

Ky., Murray—Jeffrey's barber shop, T. O. Turner's department store; loss \$20,500.

La., Cedar Grove—Continental Flat Glass Co., loss \$250,000; Louis Mottett, Pres.

La., Mansfield—Emmett Frazier's residence, South Mansfield, owned by W. B. Casey.

Md., Baltimore—Feed sheds and stables of George F. Ament Co., 1100 block N. Fremont Ave.; loss \$10,000.

Md., Salisbury—Hearne Brothers Co.'s lumber manufacturing plant; loss \$25,000.

Mo., Cabool—Farmers Hotel and Independent Order of Odd Fellows' Hall.

Mo., Charleston—Mississippi County Cotton and Grain Co.'s flour milling plant; loss \$80,000.

Mo., Kansas City—Second floor of building at Eighteenth and Oak Sts., occupied by the Fair Auto Painting Co., loss \$22,000; building owned by Robert L. Mehornay, 430 W. 59th St. Terrace.

Mo., Springfield—Middle West Wholesale Millinery Co. building, 316 South St.

N. C., Ronda—Church Motor Co.'s building; loss \$12,000.

N. C., Winston-Salem—Woolworth Store, Gilmer Bldg.; Kinney's shoe store, Liberty St.; O'Hanlon's drug store, Liberty St., etc.; loss \$70,000.

Okla., Anadarko—Plant of Anadarko Cotton Oil Mill; loss \$25,000.

Okla., Wewoka—Patterson Dry Goods Co. building, American Hotel and Cafe and other structures; loss \$500,000.

S. C., Greenville—Citizens Lumber Co.'s warehouse, planing mill and yard; loss from \$30,000 to \$50,000.

S. C., Spartanburg—Willard's Filling Station at Converse and Main St.

Tenn., Charleston—Postoffice and J. A. Swan's store, both owned by J. M. Ham-bright; Service Grocery Co.; loss \$12,000.

Tenn., Columbia—Maury D. Armstrong's residence, Hampshire Pike, Mauro county.

Tenn., Knoxville—Radio broadcasting apparatus on roof of People's Telephone & Telegraph Co., building, 313 Commerce Ave.; loss \$20,000.

Tex., Dallas—Building at 1407 Elm St., owned by Ellihu Sanger, occupied by Devoe & Reynolds Co. of Texas and Hooker Hardware Co.; building at 1401-3 Elm St., owned by Rick Estate, occupied by Howell Co.; loss \$275,000.

Tex., San Angelo—Walker Smith Co. building on W. Fourth St.; loss \$115,000; Sam Dowty, Mgr.

Va., Charlottesville—Buildings occupied by Western Union Telegraph Co. and Super-Ironclad Printing Co.; loss about \$300,000.

Va., Fort Myer—Battery A stables; loss \$30,000; Capt. Steele Watkins, Post Adj.

Va., Lynchburg—Adams Bros.-Paynes Co., Park Ave. and Kemper St., planing shed, boiler room, etc.; loss \$35,000.

Va., Rosslyn—Three-story brick building of the Rosslyn Packing Co.

W. Va., Morgantown—Residence of R. M. Cavendish, rights-of-way Mgr. State Roads Commission; Gilbert Davis Coal Co.'s tippie No. 6.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### Association and Fraternal

Ala., Sheffield—Sheffield Lodge, I. O. O. F., erect \$25,000 building, Fifth St. and Nashville Ave.; 50x50 ft., 2 stories; store on first floor; D. L. Sigmon, Archt.

D. C., Washington—Young Men's Christian Assn., Wm. Knowles Cooper, Gen. Sec., 1376 G St. N. W., contemplates \$3,000,000 to \$4,000,000 building program; work to include permanent building at Walter Reed Hospital; colored building, Howard University; building for soldiers, sailors and marines and new central building; probably inaugurate fund campaign about three months.

Mo., Kansas City—Swope Park Masonic Building Co., 60th St. and Swope Parkway, plan to let sub-contracts to complete lodge and public assembly building; steel frame up, cost about \$100,000; reinforced concrete, 3 stories, 51x125 ft., terrazzo, Magnestone, marble and cement floors, precast cement roof, hollow and interior tile, metal ceilings and doors, steel sash and trim, wire glass; Geo. W. Swella, Archt., 201-02 Westport Ave. Bank Bldg.\*

Mo., University City (Station St. Louis)—University Lodge No. 649, A. F. & A. M., has broken ground for \$135,000 building; Egyptian type, Bedford stone ashlar blocks, 2 stories and basement, 52x100 ft., steel joists, concrete and hardwood floors, concrete foundation; J. W. Leigh, 2090 Railway Exchange, and T. P. Barnett Co., Asso. Archts., Arcade Bldg., both St. Louis.\*

Tex., Austin—Young Women's Christian Assn., E. H. Perry, Chmn. Bldg. Comm., 300 E. Fifth St., receives bids Nov. 12 from local contractors for remodeling present building, Tenth St. and erecting new structure; 3 stories, reinforced concrete, hollow tile and brick, built-up roof, edge grain pine floors; total cost \$100,000; Giesecke & Harris, Archts., 207 W. Seventh St.\*

Tex., San Antonio—Ancient Free and Accepted Masons receive bids Nov. 6 for temple, S. Flores and Huff Sts., Harlandale; 2 stories, 42x80 ft., face and common brick, cost \$75,000; Will N. Noonan Co., Archts., Builders Exchange Bldg.\*

Tex., San Antonio—Fraternal Order of

Eagles, care Paul Steffler, City Hall, plan \$75,000 building; 2 stories and basement, brick and reinforced concrete.

#### Bank and Office

Fla., Coral Gables (Branch Miami)—Nelson-Pedley Construction Co., 1512 Chestnut St., Philadelphia, Pa., erect office buildings, connection with \$4,000,000 building program.

Fla., Fort Myers—Estate of H. E. Heltman, 10-story hotel and office building; Francis J. Kennard, Archt., Kraus Bldg., Tampa. (See Buildings Proposed—Hotels and Apartments.)

Fla., LaBelle—Bank of LaBelle interested in erection of store and office building.

Fla., Sarasota—First National Co., A. L. Joiner, Pres., erect \$30,000 office building, Main St. and Orange Ave.; 10 stories; M. Leo Elliott, Archt., Citizens Bank Bldg., Tampa.

Fla., Tampa—Tampa Builders Exchange, Carl Fisher, Sec., 207 Franklin St., have plans completed by Francis J. Kennard & Son, Kraus Bldg., for \$600,000 building, Cypress St. and North Blvd.; 10 stories, 50x120 ft.; 8 stories on first floor, 162 offices above; bids to be opened within 30 days.\*

Fla., West Palm Beach—M. Morgenthau, Jr., 402 Guaranty Bldg., having plans drawn by Harvey & Clarke, Guaranty Bldg., for 12-story office building, Olive and Datura Sts.; preliminary stage.\*

La., New Orleans—Orleans Levee Board, 201 New Orleans Court Bldg., preparing preliminary plans for \$20,000 office building, Lakeview; frame, 2 stories, 70x70 ft.; concrete foundation, composition roof; plans by Engineering Dept. Co. Marcel Garsaud, Ch. Engr.

La., New Orleans—Marine Bank & Trust Co., 219 Carondelet St., remodel frame building, 5514 Canal Blvd., for branch bank; Jones, Roessle & Olschner, Archts., Maison Blanche Bldg.

Miss., Biloxi—Geo. Poole and R. L. Simpson erect third story to office building, 25th Ave. and 13th St., occupied by Mississippi Power Co.; Barney E. Eaton, Pres., Gulfport.

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Mo., Kansas City—Jas. H. White and White & Davis Investment Co. redecorate and install elevators in Lee Bldg., Tenth and Main St.; C. E. McLaughlin, Mgr., all Lee Bldg.

Mo., St. Louis—Joseph F. Dickmann Real Estate Co., 623 Chestnut St., erect \$300,000 fireproof office building, 3117-19 S. Grand Blvd.; 4 stories; ground floor leased to F. W. Woolworth Co.

N. C., Belmont—Belmont Processing Co. erect office building; Lockwood, Greene & Co., Engrs., Johnston Bldg., Charlotte, N. C., and 24 Federal St., Boston, Mass.

N. C., Belmont—Bank of Belmont, W. B. Pruett, Cashier, erect \$175,000 building, Main St.; 3 stories, 48x112 ft.; bank on first floor, 34 offices above; White, Streeter & Chamberlain, Archts., Gastonia.\*

Okla., Oklahoma City—G. A. Nichols, 115 N. Harvey St., and D. R. Cummings erect \$100,000 office building, Third St. and Broadway; brick, stone and reinforced concrete, fireproof, 3 stories and basement, 75x140 ft.

Tenn., Nashville—Fourth and First National Bank and Fourth and First Bank & Trust Co., Jas. E. Caldwell, Sr., Pres., 326 Union St., reported having preliminary plans drawn for \$500,000 building, Fourth and Union Sts.; to be connected with present structure by passageways under and above ground site 85x100 ft., 10 stories; Ludlow & Peabody, Archts.; 101 Park Ave., New York.

Tex., Edinburg—A. Y. Baker & Co. receives bids Nov. 12 for brick, reinforced concrete and cast stone bank and office building; 3 stories, 50x135 ft., fireproof; elevator; separate bids for plumbing, steam heating and wiring; Stebbins & Waters, Archts., Weslaco.\*

W. Va., Huntington—Ridgelawn Cemetery Assn. erect \$15,000 office and rest rooms building, \$18,000 chapel, Ridgelawn Cemetery; one-story, oak floors, concrete foundation, tile roof, wood-block floors, vaults, vault lights, ventilators, steel sash and trim, Bedford limestone, gas heat, electric light and power; plumbing by owner; American Park Builders, Archts., 201 E. Ontario St., Chicago, Ill.\*

### Churches

D. C., Washington—First Congregational Church, Rev. Jason Noble Pierce, Pastor, having preliminary sketches drawn by Allen & Collins, 40 Central St., Boston, Mass., and Howard W. Cutler, 1311 G St. N. W., Washington, for \$1,250,000 structure on present site.\*

Fla., Milton—Methodist Church plans building. Address The Pastor.

Fla., Ocala—First Baptist Church will not let contract for \$150,000 hollow tile building for several months; Geo. MacKay, Archt.\*

Mo., St. Charles—Lutheran Evangelical Church erect \$10,000 addition to Sunday School, Seventh and Jefferson Sts.; two rooms. Address the pastor.

Fla., St. Petersburg—Emmanuel Baptist Church, Dr. W. H. Hubbard, Pastor, plans building, 11th St. and Seventh Ave. North; remodel residence on site for use until structure is completed.

Fla., Tampa—Hyde Park Presbyterian Church, Rev. C. H. Branch, Pastor, plans \$200,000 building, site present structure Swann and Orleans Aves.

Fla., Tampa—First Christian Church, care Madison School building, Madison and Pierce Sts., receives bids Nov. 11 for Gothic type church and Sunday-school, Hyde Park Ave. and DeLeon St.; cost \$200,000; latter 3 stories, auditorium seat 1000, 40 classrooms, \$10,000 three-manual pipe organ; R. H. Hunt Co., Archt., James Bldg., Chattanooga, Tenn.\*

Ga., Atlanta—Inman Park Baptist Church, Samuel A. Cowan, Pastor, 41 Poplar Circle, having plans drawn by N. Sergeant Hamilton for \$75,000 brick building; 3 stories, stone foundation.\*

La., New Orleans—St. Anthony of Padua R. C. Church has low bid through Wogan & Bernard, Ltd., Archts., Title-Guarantee Bldg., from O. M. Gwin Construction Co., 832 Common St., at \$50,968 for finishing interior of building.\*

Md., Baltimore—Grace Reformed Church, Rev. Saml. A. Troxell, Pastor, 101 W. Ostend St., erect \$100,000 building, Charles and Clement Sts.; Romanesque and Gothic types, cross-shape main auditorium seat 500, Sunday school 500; bowling alleys, recreation room; Chas. W. Bolton & Sons, Archts., Schaff Bldg., Philadelphia, Pa.

N. C., Asheville—First Baptist Church bldg. comm. ready for bids on church and wishes contractors desiring to estimate to make application, stating qualifications; cost

about \$525,000; about 1,000,000 cubic feet; Douglas D. Ellington, Archt., Wabash Bldg., Pittsburgh, Pa.\*

N. C., Concord—Presbyterian Church erect \$150,000 non-fireproof church and Sunday school; 1 and 3 stories, 53x120 ft. and 81x85 ft., hardwood and concrete floors, brick foundation, slate roof, vault lights, rolling partitions; Hobart Upjohn, Archt., (Aaron G. Alexander, Mgr.), Grand Central Terminal, New York; issue plans about Nov. 15.\*

N. C., Durham—Church of Christ (Disciples), Rev. Cecil Outlaw, pastor, plans building, Holloway and Spruce Sts.; probably three stories.

N. C., Greensboro—First Christian Church, Rev. C. H. Rowland, Pastor, plans building, W. Washington St. and Blandwood Ave.

N. C., Tarboro—Baptist Church plans \$90,000 building, Main St.; accommodate 650; 52 classrooms. Address the Pastor.

Okla., Norman—Christian Church, care O. Leadbetter, Security National Bank Bldg., erect \$250,000 building; architect not selected.

Okla., Oklahoma City—Quail Memorial M. E. Church, Rev. J. J. Johnson, Pastor, erect \$25,000 brick and stone building; Harry Reynolds, Archt., 240 Terminal Arcade Bldg.

Okla., Tulsa—Boston Avenue M. E. Church, South, C. C. Cole, Chmn. Bldg. Comm., selected R. H. Hunt Co., James Bldg., Chattanooga, Tenn., and S. W. Life Bldg., Dallas, Tex., as architects for \$500,000 main auditorium and Sunday-school buildings, 13th and S. Boston Sts.; former 100x136 ft., latter 4 stories, Gothic type, probably stone, auditorium seat 1700, tower.

Okla., Weatherford—Presbyterian Church, Rev. Geo. H. Atkinson, Pastor, erect building; A. C. Davis & Son, Archts., Shawnee.

Tenn., Knoxville—Central M. E. Church, South, have plans out about Dec. 1 for brick, steel and frame church and Sunday-school; terra cotta trim; cost \$200,000; equipment, furnishings, etc., \$50,000; three stories, former 72x82 ft., latter 63x173 ft., wood and concrete floors, concrete foundation, tile or slate roof, hollow and interior tile, ventilators, steel sash and trim; R. H. Hunt Co., Archts., James Bldg., Chattanooga.\*

Tex., Kingsville—Chas. H. Brient, low bidder on Baptist Church, advises church will not build at this time; Will N. Noonan Co., Archt., both Builders Exchange Bldg., San Antonio.\*

Tex., Vernon—First Baptist Church having plans for church and Sunday-school refurnished by J. H. Reddick, Kennedy Bldg., Fort Smith, Ark., and Abilene, Tex.; L. J. Gentry, Henrietta, Tex., and Harter & Wheeler, Enid, Okla.; cost \$125,000 to \$150,000, 1 story and balcony, 71x110 ft., fireproof, brick, stone, steel; Guy A. Carlander, Archt., 15 Massie Bldg., Amarillo, Tex.\*

### City and County

Ark., El Dorado—City, Archie D. Murphy, Mayor, votes Dec. 15 on \$150,000 city hall bonds.

Ark., Jonesboro—Craighead County Board of Commrs. plan courthouse.

Fla., Moore Haven—Glade County receives bids Nov. 16 for fireproof courthouse; cost about \$150,000, 2 stories, 51x130 ft., linoleum and tile floors, concrete foundation, copper and Barrett roof, hollow tile, metal doors, vaults, vault lights, ventilators, hollow metal, wire glass; furnishings, equipment, etc., \$10,000; sub-bids in gen. contract; items to be purchased include furniture, steel filing cases; plans by Guy Platt Johnson, Pythian Bldg., Fort Myers.\*

Fla., Orlando—City receives bids at office Mayor until Nov. 25 for municipal auditorium; plans and specifications from Krug & Parrish, Archts., 30 E. Church St.; cost \$175,000, brick and hollow tile, 140x210 ft., about 40 ft. high, 3 stories; seat 4149; 2 assembly rooms seat total 250.\*

Fla., Palmetto—Chamber of Commerce, C. M. Harrison, member, interested in election on city hall and jail bonds.

Fla., Punta Gorda—City probably vote about 40 days on city hall bonds. Address City Commrs.\*

Fla., Punta Gorda—Charlotte County receives bids Nov. 18 for courthouse and jail; cost \$145,000; furnishings, equipment, etc., \$15,000; brick, steel and concrete, 3 stories, 87x127 ft., rift pine and concrete floors, concrete foundation, tile and composition roof, hollow tile, vaults, ornamental terra cotta, steel sash and trim, wire glass; bids include all work but furnishings; plans and specifications from Builders Exchanges, Jacksonville and Tampa; also from S. J.

Welch, Archt., and Altank Construction Co., both Pensacola.\*

Fla., Sebring—Highlands County Board of Commrs., Clifford Pierce, Chmn., votes Dec. 1 on \$1,500,000 bonds, including \$212,000 for courthouse; fireproof, stone, 4 stories, 140x64 ft., marble and concrete floors, concrete foundation, composition roof; Fred A. Bishop, Archt., Virginia Railway & Power Bldg., Richmond, Va.\*

Fla., Titusville—City, J. P. Wilson, City Clk., has plans by DeLoe & Tyler for city hall and fire station; cost about \$25,000.\*

Fla., Wauchula—City voted \$90,000 city hall-auditorium bonds; Spanish type, block and stucco, 2 stories, 110x140 ft., cement and hardwood floors, concrete foundation, clay tile and Barrett 10-yr. roof; H. G. Little, Archt.\*

Ga., Valdosta—Lowndes County erect new cells in jail; toolproof steel; receiving estimates.

La., Crowley—Following contractors estimating on courthouse alterations and 3-story jail for Arcadia Parish Police Jury; bids opened Nov. 20 (lately noted Oct. 20): E. A. Rabalais, Bunkie; E. A. Underwood, 424 Miller Ave.; W. J. Quick, Swift Bldg.; P. Olivier & Son, 114 Bilbo St., all Lake Charles; Tudor & Roland, Alexandria; J. A. Haase, Jr., 916 Union St.; Wm. R. Burk, Archt., Balter Bldg., both New Orleans; cost \$70,000.

Miss., Hazlehurst—Copiah County Board of Supervisors rebuild burned dormitory at country home.

Mo., Chillicothe—City voted \$50,000 city hall bonds; R. Warren Roberts, Archt.\*

Tex., Bay City—Matagorda County, Amos Lee, Auditor, receives bids Nov. 14 for repairing and remodeling jail; cost about \$18,000; Southern Steel Co., Archt., 4500 block S. Presa St., San Antonio.

N. C., Wilmington—Donald Ross, Golf Archt., Pinehurst, not architect for clubhouse at municipal golf course, Winter Park, as lately noted. Address The Mayor.\*

Okla., Ada—Pontotoc County Commissioners plan election on \$175,000 courthouse and jail bonds.

Okla., Okemah—Okfuskee County, W. S. Seawell, County Judge, voted \$200,000 courthouse bonds; brick, stone and reinforced concrete.\*

Okla., Woodward—Woodward County Commrs. remodel building; new floors, ceilings, woodwork; repair roof.

Tex., Bonham—Fannin County, Sam E. Neilson, Judge, repair courthouse; cost \$12,000; Sparger & Peters, Archts., Taylor Bldg.

Tex., Elgin—City and Bastrop County, care Judge A. M. Felts, plan concrete and steel jail to replace burned structure.

Tex., San Antonio—Atlee B. & Robt. M. Ayres, Archts., Bedell Bldg., San Antonio, drawing plans for last 2 units municipal museum building; cost \$75,000; first unit under construction by Moeller & Wellbacher.\*

Tex., Lefors—Gray County Commissioners, Wm. Wolfe, County Judge, receives bids Nov. 21 for brick and concrete fireproof addition to courthouse for vault; 1 story, 23x18 ft., built-up asphalt roof, steel sash and trim, wire glass, concrete floors; J. Roy Smith, Archt., 310 Blackburn Bldg., Amarillo.\*

Tex., Waco—McLennan County, Moanton Hannah, County Engr., plans repairing women's dept. in jail.

Va., Danville—City, R. P. Moss, Sec. Bldg. Comm., receives bids Nov. 5 for fire station, Bridge St.; cost \$30,000, brick, 2½ stories, about 85x80 ft.; plans and specifications on file with Mr. Moss and may be had from Wm. H. Dietrick, Archt., 216 Newbern Ave., Raleigh, N. C.\*

### Dwellings

Ala., Birmingham—Dr. Jas. S. McLester, 930 S. 20th St., erect \$10,000 brick residence, 20th St. near Tenth Ave.; 1 story.

Ark., Ozark—Bud Benson erect residence.

Fla., Arcadia—H. L. Merrick, Miami, care R. C. Morris, De Sota Park, Arcadia, plans 100 dwellings, DeSota Park; 4 or 5 rooms, stucco.

Fla., Avon Park—City Council, care C. R. Head or John D. Raab, erect 15 frame dwellings and 30 tents for temporary housing.

Fla., Clearwater—Sigmund Gutenberg, Archt., erect several dwellings, Mandalay.

Fla., Clearwater—Clearwater Lumber Co., John G. Underhill, Pres., plans 225 dwellings; sell for about \$4000 each.

Fla., Coral Gables (Branch Miami)—Nelson-Pedley Construction Co., 1512 Chestnut St., Philadelphia, Pa., reported erect dwell-

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



ings connection with \$4,000,000 building program; five 2-story, Italian type, start at once.

Fla., Coral Gables (Branch Miami)—H. H. Niederhiser erect \$12,000 residence, 832 Columbus Blvd.; Martin Hauri, Archt., 39 S. E. Sixth St., Miami.

Fla., Coral Gables (Branch Miami)—Wecker & Perken erect \$16,000 Spanish-type residence, 2107 Alhambra Circle; Robt. L. Weed, Archt., 328 N. E. Second Ave.

Fla., Coral Gables (Branch Miami)—W. S. Harvel erect 2 dwellings, 1227-31 Madrid St.; cost \$8500 each.

Fla., Coral Gables (Branch Miami)—Dr. Landis Hixon Wirt, South Bend, Ind., erect residence, Majorca Blvd. near Granada St.

Fla., Coral Gables—David E. Sheehan, 201 Townley Bldg., erect \$32,000 residence, 1115 N. Greenway Drive.

Fla., Dade City—O. L. Bazzell erect two \$6000 dwellings.

Fla., Dade City—Knapp & Wakefield erect dwellings; total cost \$12,000.

Fla., Daytona—Marco Realty Co., A. Marco, Pres., erect 50 dwellings, connection with development, Rockaway Beach.

Fla., Daytona—Gage Advertising Service, 43 N. E. Second St., Miami, advises number of dwellings be erected in connection with development by Country Club Development Co., 121 Magnolia St., Daytona.

Fla., Hollywood—W. A. Kidd, Bartlesville, Okla., erect 200 two-family dwellings, in units of 10, Hollywood Hills section; Spanish type.

Fla., Hollywood—D. A. Lundy erect 25 Spanish-type dwellings; cost \$15,000 to \$20,000 each.

Fla., Jacksonville—J. C. Goughner plans number of cottages and clubhouse, Gray Gables.

Fla., Jacksonville—J. B. Cox, 3102 Liberty St., erect \$18,000 dwelling, Cherry St., near Park St.; also dwelling, Park St., near Goodwin St.; both 2 stories, brick veneer.

Fla., Jacksonville—Henry Taylor & Son, 903 Lackawanna St., erect \$11,500 dwelling, Montgomery St., near St. John's Ave.; 2 stories, frame and stucco.

Fla., Jacksonville—C. W. Cates erect \$10,000 dwelling, Forbes St., near Talbot St.; 2 stories, frame and brick veneer.

Fla., Jacksonville—F. W. Michaels erect residence, Dixie Highway, near Gray Gables.

Fla., Mascotte—E. G. Gano plans stucco bungalow, Block B, W. F. Duggan's addition.

Fla., Miami—Florida Realty Holding Co., Thos. F. MacMahon, 1402 Broadway, members, New York, erect 500 dwellings, Miami Villas, adjoining Greater Miami on Kendal Rd.; cost \$4500 to \$4900, total cost about \$2,350,000; Spanish bungalow type, 100 in first unit.

Fla., Miami—Jos. Walsh, 1835 Dime Bank Bldg., Detroit, Mich., contemplates number of dwellings, Tropics subdivision.

Fla., Miami—J. Bernstein erect 3 dwellings, 2700 block S. W. 17th St.; cost \$6000 each.

Fla., Miami Beach—Beach Realty Co., Miami Beach Casino, erect 2 dwellings, Bay Drive near Edna Way, Isle of Normandy.

Fla., Monticello—Thornton Realty Co. erect 4 Spanish-type stucco bungalows.

Fla., New Port Richey—Chas. E. Snell erect 12 dwellings, Montana Ave.; work started on first.

Fla., New Smyrna—George A. Rubin Realty Co. (See Contracts Awarded—Dwellings, Fla., Daytona Beach.)

Fla., Panama City—St. Andrew's Gulf Beach, Inc., W. H. Baxley, Pres., erect number 3 and 4-room dwellings; native pine and cement.

Fla., Pompano—A. Robt. Chananie, Miami, drawing sketches for 12 dwellings, Genesee Isles, Pompano Beach; modified Italian type, 2 stories, patios; cost about \$15,000 each.

Fla., Sarasota—Frank T. Neely, Hotel Plaza, New York, and Capt. Robt. B. Carter, Washington, D. C., erect 15 dwellings as first unit of building program; cost about \$100,000.

Fla., Sebring—T. E. Lilly erect 50 dwellings, Lakewood Terraces.

Fla., St. Augustine—Otis E. Barnes erect \$12,000 residence and double garage, Nelmar Terrace subdivision.

Fla., St. Augustine—A. E. Pilgrim, 151 Marine St., erect \$20,000 residence and garage, Tremerton St.

Fla., St. Petersburg—Fred Dillman, 12th St. and 19th Ave., N., erect \$10,000 residence, 14th Ave., North, and 12th St.; 2 stories, 7 rooms, tile veneer.

Fla., St. Petersburg—F. W. Cook, Lima, O., Director, Franklin Mortgage Co., St. Petersburg, erect residence, Franklin Heights; drawing plans.

Fla., St. Petersburg—Crystal Development Corp., Chicago, Ill., I. L. Milton and F. L. Deatherage, members, erect 12 Spanish-type dwellings, Pennsylvania Ave., Overlook section, Shore Acres; cost \$15,000 to \$25,000 each; other dwellings to follow; Boardman-Frazee Realty Co., 176 Central Ave., property sales agent.

Fla., St. Petersburg—C. B. Allen, 3405 Euclid Blvd., erect \$12,000 dwelling and garage, Clearview Ave. near Haines Rd., Allendale Terrace; 2 stories, 41x45 ft., 8 rooms.

Fla., Tarpon Springs—Fred A. Crosssett erect about 15 Spanish type bungalows, Inness Park; hollow tile and stucco, 1 story, tile and oak floors, tile and concrete foundation, tile roof; total cost \$75,000; Ray W. Coan, Archt., drawing plans.\*

Fla., West Palm Beach—Robt. G. Lassiter erect \$21,000 residence and garage, James St. near 18th St.; 11 rooms, Spanish type; Porter Skinner, Archt.

Fla., West Palm Beach—L. L. NeSmith erect \$15,000 residence and garage, Edgewood Drive, near Olive St., Southland Park; 2 stories, 35x43 ft. and 20x32 ft., stucco.

Fla., West Palm Beach—Frank E. Daily and others consider erecting number of dwellings in addition to one recently noted.

Fla., Winter Park—Fred L. Hall erect \$11,000 to \$12,000 residence.

Fla., Zolfo Springs—Zolfo Springs Construction Co. plans 100 dwellings; cost \$3000 to \$8000 each.

Ga., Savannah—Harry Fulenwider, 643 Victory Drive, erect residence, 48th St.

Ga., Savannah—Mrs. Robt. L. Laughlin, 214 W. 39th St., erect residence, Reynolds St. near 51st St.

Ga., Savannah—Warren T. White, Ogle Bldg., erect residence, Reynolds and 50th Sts.

Ky., Blue Diamond—Blue Diamond Coal Co. advises will not erect additional dwellings at this time.\*

La., New Orleans—Dr. Geo. C. Battalora, Hibernia Bldg., plans residence, St. Roch Ave.

La., New Orleans—N. A. Armstrong, 1624 Newton St., erect 2 duplexes, Nelson and Short Sts. and Carrollton Ave.; tile roofs; total cost \$18,000.

La., New Orleans—P. Stakelum, 3610 Cleveland Ave., plans bungalow S. Miro St. near Upperline St.

La., New Orleans—John A. Vesey, 520 St. Louis St., plans residence, Fontainebleau Drive and Versailles Blvd.

La., New Orleans—A. H. Ehrensing, Archt., 1124 Peniston St., receiving bids for frame bungalow, Jefferson Parish; slate roof, tile floors, plastered walls, stucco, septic tank, etc.; A. C. Babins' Sons, Marine Bank Bldg., estimating.

La., New Orleans—Edw. F. Bowman, Jr., 2727 Cleveland Ave., plans residence, Fairway Drive; architect not selected.

Md., Baltimore—Daniel C. McGonigle, 27 W. North Ave., considers erecting residence, S. side Bellona Ave. near Charles Street Ave.

Md., Frederick—Chas. H. Kehne erect 4 cement block dwellings, W. Seventh St. near Trail Ave.

Miss., Clarksdale—Ed Brewer erect Colonial residence; brick, moss green shingle roof, 2 baths, nursery; Jas. J. Broadwell, Archt., Cotton Exchange Bldg., Memphis, Tenn.

Mo., Clayton (Ind. Branch St. Louis)—H. H. Sims, 4947 Buckingham St., erect \$10,000 residence, Hillcrest; brick, stucco and stone, 27x45 ft.

Mo., Kansas City—Judge Chas. R. Pence, 210 Linwood Bldg., erect Colonial residence, 635 W. 66th Street Terrace.

Mo., Kansas City—Lyndon Bros. erect dwellings, 309-11 E. 69th Terrace; total cost \$10,000.

Mo., Kansas City—Louis L. Seibel, Pres. Badger Lumber & Coal Co., 559 Westport Ave., erect residence, Cherry St., Crestwood.

Mo., Kansas City—H. M. Barns, 1923 Linwood St., erect \$10,000 residence, 5535 Crestwood St.

Mo., Kansas City—Dougherty & Hense erect 6 dwellings, 2510-14-16-30-34 Lister St.; total cost about \$18,000.

Mo., Kansas City—Mrs. Lawrence Strauss, 3537 Wyandotte St., erect residence, 55th St. and Wornall Rd.

Mo., Kansas City—W. W. Goodwin, 407

Finance Bldg., erect \$25,000 residence, 5349 Ward Pkwy.

Mo., Kansas City—F. L. Mixon, 5330 Rockhill Rd., erect 2 dwellings, 8-12 E. Dartmouth St.; total cost \$10,000.

Mo., Kansas City—J. C. Nichols Investment Co., 307 N. 47th St., erect \$17,000 residence, 825 Meyer St.

Mo., Kansas City—H. V. Smith, 63rd and Brookside Sts., erect \$10,000 residence, 439 W. 68th St.

Mo., Kansas City—F. W. Stosberg, 4907 Euclid Ave., erect 2 dwellings, 310-13 E. 69th St.; total cost \$10,000.

Mo., Springfield—W. G. Allen erect residence, 876 Delmar Ave.

Mo., West Plains—John Evans erect brick residence, Grace Ave.

N. C., Asheville—A. J. Cleary, Director, Southern Bank & Trust Co., 46 W. Flagler St., Miami, Fla., purchased Robert Blake estate and will restore.

Okla., Tulsa—First Christian Church, 901 S. Boulder, erect 6-room bungalow. Address The Pastor.

Tenn., Chattanooga—Chattanooga Baseball Club, E. 3d and O'Neal Sts., erect 6 dwellings, E. Fifth St. near O'Neil St.; 5 rooms; total cost \$18,000.

Tenn., Knoxville—G. T. Fielden, 2027 E. McCalla Ave., erect 2 dwellings, Linden and Chestnut Sts.; 12 rooms; total cost \$14,000.

Tex., Galveston—H. G. Fields erect \$36,000 residence and garage, 5302 Institute Lane, Jandor addition; 2 stories, 8 rooms, frame.

Tex., Houston—J. W. Shelor, 520 Louisiana St., has plans about finished for \$26,000 brick veneer and plaster on metal lath residence, 2 stories and attic, 32x67 ft., oak floors, reinforced concrete foundation, composition shingle roof, hot-water heat, electric work, including refrigeration, 3 baths, lavatory and kitchen plumbing; J. W. Northrup, Jr., Archt., 302 West Bldg.\*

Tex., San Antonio—C. R. Meyer, 3901 S. Flores St., plans 5-room brick, frame and stucco residence, 300 block Pleasanton Rd.

Tex., San Antonio—A. R. Cain erect 2 brick veneer cottages, 5235-39 Montecello St.; 6 rooms; total cost \$11,000.

Tex., Waco—C. Herbert Green, 509 Herring Ave., erect 6-room cottage, 2817 Trice St.

Tex., Waco—A. C. Patton, 411 Austin Ave., receives bids Nov. 13 for brick veneer residence; cost about \$25,000; 2 stories and basement, 36x50 ft. with porch extensions, oak, edge grain pine, tile and cement floors, concrete foundation, slate roof; Birch D. Easterwood, Archt., 614 Liberty Bank Bldg.\*

Va., Criglersville—R. S. Graves, Chagrin, Ohio, purchased estate; remodel and enlarge; engage landscape archt.

Va., Roanoke—J. F. Snyder, 1219 Clarke Ave. S. W., erect brick cased residence, Wycliffe Ave. and Seventh St.; cost about \$10,000.

## Government and State

Ark., Jonesboro—State about completed foundation for \$75,000 National Guard armory; brick, steel columns and trusses, 3 stories, 204.10x162 ft., concrete and wood floors, composition roof; furnishings, equipment, etc., \$10,000; Harry E. Eldridge, Constr. Engr., care Agricultural and Mechanical College. (See Machinery Wanted—Brick; Brick Work; Steel Trusses; Roofing (Composition).\*)

Fla., Miami—Dade County erect \$100,000 armory for National Guard units. Address County Commrs.; bonds available.

Fla., Miami—J. C. H. Realty Corp., 116 N. E. Second Ave., erect building, N. W. 28th St., near 17th Ave., Allapattah, to be leased to Government for branch post office; 2 stories, 70x125 ft., reinforced concrete and tile, stores or offices and post office on first floor, 6 apartments on second.

N. C., Asheville—Troop F, 109th Cavalry, erect \$50,000 armory, adjacent to Malvern Hills.

W. Va., Alderson—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., receives bids Nov. 30 for mechanical equipment of buildings and outside services at Federal Industrial Institution for Women; drawings and specifications from office Supervising Archt.; receives construction bids same date.\*

## Hospitals, Sanitariums, Etc.

Fla., Arcadia—De Soto County votes \$300,000 hospital bonds; fireproof, 3-story main building, separate building for negroes, nurses' home, garage and heating plant;

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Talley, Buckley & Talley, Archts., Lakeland.\*

Ky., Dry Bridge—Booster's Club interested in 50-room hospital for Grant County.

Md., Baltimore—Johns Hopkins Hospital, Dr. Winford H. Smith, Director, receives bids Nov. 10 for 10-story dispensary, Monument St.; cost \$1,000,000; equipment, \$750,000; Jos. Evans Sperry, Archt., Calvert Bldg.; following contractors estimating: Northeastern Construction Co., 612 Lexington Bldg.; M. A. Long Co., 10 W. Chase St.; Chas. L. Stockhausen Co. Inc., National Marine Bank Bldg.; Fraunie Brothers & Haighley, 19 W. Franklin St.; Consolidated Engineering Co., 20 W. Franklin St.; Henry Smith & Sons Co., 115 S. Hanover St.\*

Mo., Kansas City—Ozias Institute and Clinic reported erect \$1,000,000 building, Westport and Baltimore Aves.

Tex., Fort Worth—Tarrant County Commissioners' Court and City, Dr. L. H. Martin, City Health Officer, erect addition to City-County Hospital.

Tex., Port Arthur—Gulf Refining Co. advises will not erect hospital as lately reported.\*

### Hotels and Apartments

Ark., Ozark—Mrs. Bristow reported to erect three-story hotel.

Fla., Coral Gables—Falk & Geno, 704 N. E. Second Ave., announced erection of second structure twice the size of \$250,000, 20-suite San Juan co-operative apartment building under construction; Hampton & Ehmann, Archts., 100 Congress Bldg., both Miami.\*

Fla., Coral Gables—D. Lewinstein erect \$45,000, 2-story, 8-apartment house, 628 Avenue Santander.

Fla., Coral Gables—Nelson-Pedley Construction Co., 1512 Chestnut St., Philadelphia, Pa., plans \$4,000,000 building program embracing construction of homes, apartments, office buildings, stores and garages.

Fla., Daytona—Country Club Development Co., C. M. Wilder, Pres., S. end Peninsular Drive, Daytona Beach, erect hotels, apartment buildings, etc., in connection with development. (See Land Development.)

Fla., Daytona—A. C. Fuquay, 704 N. Ridge-wood St., and C. R. Carroll have plans in progress by E. F. De La Hays for 2-story apartment house on Tanglewood Ave.; stucco over frame construction.

Fla., Daytona Beach—R. S. Bleekman, Pres. of Bleekman & Robinson, Inc., of Miami, reported leased site for 300-room, 7-story commercial hotel; H. V. Novick in charge of local office at 218 N. Beach St.

Fla., DeLand—C. L. Jackson of Seaboard Realty & Development Co., 2054 N. Mervine St., Philadelphia, Pa., announced work to start Jan 1st on hotel.

Fla., Fort Myers—Estate of H. E. Heitman, care Gilmer M. Heitman, has plans in progress by Francis J. Kennard, Kraus Bldg., Tampa, for 10-story, 200x200-ft., brick and steel, 250-room hotel and office building, First St. between Lee and Jackson Sts.; cost \$1,000,000 exclusive of site and furnishings; hollow tile, interior tile, plaster board, ventilators, mail chutes, ornamental terra cotta, wire glass; Hockenbury System, Inc., Harrisburg, Pa., conduct drive to finance.\*

Fla., Lake City—George M. Garsson and associates of Marlborough Construction Co., Miami, erect hotel building on site donated by J. B. Hodges, representing hotel site trustees; arcade with 16 offices and shops, 150 guest rooms.

Fla., Lake City—Chamber of Commerce promoting erection of tourist hotel; offering site as bonus.

Fla., Lake Worth—D. W. Boydston soon start work on \$500,000, 7-story, Spanish type, 100-guest rooms each, with bath, Boydston Hotel, 12th St. and Dixie Highway; drug store and shops on ground floor, roof garden; William Manly King, Archt., West Palm Beach.\*

Fla., Lynn Haven—Berry Collins & Co., 64 Peachtree St., Atlanta, Ga., plans immediate construction of 7-story hotel and golf club to accommodate Venetian pool.

Fla., Miami—Buchanan & Ruff erect \$25,000, 2-story, 8-family apartment house, S. W. Ninth St., Shennadoah.

Fla., Miami—Federal Realty Co. erect \$10,000, 2-story, 2-family apartment house, W. Flagler St.

Fla., Miami—A. Ranson erect \$15,000 3-family apartment house, N. W. 40th St.

Fla., Miami—James Chaganos, 275 N. W. 1st St., erect \$15,000 rooming house and apartment, N. W. 32nd St.

Fla., Miami—Dr. D. D. Richardson erect \$11,000 two-story, four-family apartment on E. Dixie Highway.

Fla., Miami Beach—Carl Fisher, Lincoln Rd., entered contract with Co-Owners Apartment Corp., 366 Madison Ave., for erection of \$8,000,000 co-operative apartment building on Biscayne Bay; contain 216 apartments, 150 servant rooms, 200 garage spaces and 40 shops; main section 22 stories, others six, nine and twelve stories; Venetian-Italian architecture; work to start about Jan. 1st; Schultze & Weaver, Architects, 17 E. 49th St., New York, advise: "Project still in sketch state."

Fla., Miami Beach—Bert Schreiber reported to replace Hardie's Casino on Ocean Drive with \$12,000 open-air theater; in spring will replace theater with \$2,000,000 800-room hotel; W. F. Brown, Archt., 608 Fifth St.

Fla., Orlando—M. and S. Greenwald erect \$25,000, 2-story, 37.8x71-ft. apartment building, Concord St.; H. M. Reynolds, Archt., Orlando Bank & Trust Bldg.

Fla., Palm Beach—W. H. Detrick erect \$125,000, 3-story, 46-room hotel, Northwood and Poinsettia Aves.

Fla., Palm Beach—Samuel Scher erect \$61,000, 18-family apartment house, Poinsettia Ave. and Tanglewood Court.

Fla., Pompano—Sunyan Corp. has plans by Robert A. Taylor, 2248 N. E. Second Ave., Miami, start work Jan. 15 on \$300,000, concrete and stucco, Spanish-Florida type, 100-room hotel; on first floor dining room, lobby, garden with terrace and patio, ballroom and guest suites with baths; second floor 54 bedrooms, each with bath; third floor, 9 guest suites, each with bath.

Fla., Pompano—A. Robert Chananle, Archt., Miami, preparing plans for \$750,000, 200-room hotel at Genesee Isles, wires: "In sketch form only; project not definitely settled."

Fla., Sarasota—Owen Burns announced plans for construction of 100-room annex to El Verona Hotel now under construction.

Fla., Sarasota—Harry L. Weaver and Thomas D'Arcy, both St. Louis, Mo., reported considered sites for proposed hotel.

Fla., St. Cloud—Ryan & Roberts, Archts., 240 S. Orange St., Orlando, prepared plans for Pennsylvania Hotel.

Fla., Starke—G. M. Inman, S. R. Johns and N. Sternberg compose committee to raise funds for erecting \$100,000 hotel; Southern Realty Co., Lake Worth, interested.

Fla., Tampa—Henry S. Duncan, New York, and associates purchased Oldsmar properties; finish hotel to cost about \$700,000. (See Land Development.)

Fla., Titusville—Rock Park Development Corp., W. W. McConnell, Pres., erect hotel, casino and pier in connection with development; second hotel to follow immediately, estimated cost of both \$1,500,000. (See Land Development.)

Fla., Vero Beach—Groves Brothers Realty Co. erect \$22,000, 11-family apartment house, 19th St.

Fla., Vero Beach—Andrew McAnsh, Sarasota, complete Vero Del Mar Hotel about Nov. 15; reported to start work immediately on other units.\*

Ga., Albany—Barron G. Collier, 220 W. 42nd St., New York, and Thad Huckabee, Albany, officers of Empire State Development Co., purchased Blue Springs, on Dixie Highway near Albany; reported planning erection of resort hotel, casino, 18-hole golf course, etc., in connection with development.

Ky., Louisville—O. E. Ent erect \$125,000 apartments, lots 8 and 9, Eastern Parkway.

Mo., Clayton (Ind. Sta. St. Louis)—E. A. Wagner, 722 Chestnut St., erect four 38x48-ft. apartments, lots 19, 20, 21, 32, 34 and 35 De Mun Park, \$100,000; also six brick, 65x66-ft. apartments, lots 18, 21, 22, 16, 17, 15, 30, 31 and 32 De Mun Park on Southwood Ave.; \$240,000.

N. C., Tryon—Continental Hotel Co., Frank H. Anderson, Pres., 25 E. 43rd St., New York, interested in erection of \$400,000 tourist hotel on Lake Lanier; Charles A. Webb, Citizen Bldg., Asheville, also interested.

Tenn., Knoxville—E. C. Fretz of Fretz Realty Co., 607 Market St., erect \$75,000, 2-story apartment house, Laurel and 19th Sts.; 3 sections of 8 apartments each, central vapor steam heating system.

Tenn., Nashville—Dougherty & Gardner, Archts., Stahlman Bldg., announced plans for \$130,000, 60x130 ft., 4-story, brick and concrete, 22-suite apartment house, West End Ave.; two passenger elevators; carpet over concrete floors, composition roof, metal ceilings, interior and hollow tile, ventilators, ornamental terra cotta; owned by architects.

Tex., Dallas—J. Cather erect \$20,000, 24-

room, brick veneer, 8-apartment building, 4916-8 Columbia St.

Tex., Dallas—L. C. Smith, 5403 Ash Lane, erect \$16,000, 16-room, brick veneer, 4-apartment house, 4117-9 Herschel St.

Tex., Dallas—Earl E. Parkhurst, care Adolphus Hotel and 207 S. W. Life Bldg., has preliminary plans by Young & Young, 207 S. W. Life Bldg., for \$1,250,000, brick, stone, steel, reinforced concrete, 10-story and basement, 350x40 ft., L-shaped apartment building, Gaston Ave.; 4 passenger elevators.

Tex., Houston—Minchen Realty & Investment Co., West Bldg., erect \$12,000, brick veneer, 4-apartment building and garage, 1408 W. Alabama St.

Tex., Mercedes—Mrs. Fred Warren have completed plans about Nov. 25, by H. M. Warren & Co., Builders Exchange Bldg., San Antonio, for \$55,000 3-story, 106x36 ft., concrete, hollow tile and stucco Warren Hotel; mechanical bids to be included in general.\*

Tex., San Antonio—Smith Brothers Construction Co., Crockett and Dallas, commissioned Atlee B. & Robt. M. Ayres, Archts., Bedell Bldg., prepare preliminary plans for 8 to 10-story, brick, stone, reinforced concrete, fireproof, 175 to 200-room hotel building, St. Marys and Villita Sts.; cost, including furnishings, \$1,000,000.

Tex., Ulvade—Frank Kincaid purchased property on courthouse square; reported contemplates erecting hotel.

Va., Winchester—Fred and Herman Hable purchased property on S. Main St., erect 3-story store and apartment house.

### Miscellaneous

Fla., Bradenton—A. P. Turner erect \$50,000 brick and tile funeral home, S. Fairview Ave.

Fla., Coral Gables—Pfeiffer & O'Reilly, Archts., Hahn Bldg., Miami, have permit for \$18,500 studio, 222 Avenue Aragon.

Fla., Daytona—J. I. Chamberlain, Archt., Oldsmar, completing specifications, ready to call for bids Dec. 1 on \$50,000, two-story, hollow tile, 180x270 feet, clubhouse for Stetson Country Club; cement tile and concrete floors, cement foundation, tile roof, hollow tile, interior tile, plaster board, ventilators, ornamental terra cotta, steel sash and trim, wire glass. (See Machinery Wanted—Clubhouse Furnishings.)

Fla., Jacksonville—J. C. Boughner; clubhouse. (See Buildings Proposed—Dwellings.)

Fla., Lakeland—Lake Parker Yacht Club has plans by L. H. Corning, receive bids until Nov. 14, for tile and stucco clubhouse, caretaker's cottage, concrete swimming pool, pier and pavilion, concrete and frame construction, and concrete tennis courts, on Lake Parker.

Fla., West Palm Beach—Palm Beach County Fair, S. W. Hlatt, county agricultural agent, has completed plans for agricultural and automobile exhibits buildings.\*

Okla., Tulsa—Mrs. Ida M. Wygant in charge of campaign for \$30,000 for erection of three-story brick building on Broken Arrow Rd. for Frances E. Willard Home for Girls, 719 S. Quincy St.

Tenn., Chattanooga—C. H. Hardwick erect \$10,000 morgue and garage, Palmetto St.

### Railway Stations, Sheds, Etc.

Fla., Boynton—Seaboard Air Line R. R., W. D. Faucette, Ch. Engr., Norfolk, Va., reported to erect \$200,000 depot.

Tenn., Knoxville—Southern Railway Co., Henry W. Miller, Vice-Pres., Washington, D. C., reported planning extensive remodeling of passenger station on Depot Ave.

Tex., Snyder—Roscoe Snyder & Pacific Ry. Co., H. O. Wooten, Vice-Pres., reported to erect \$22,000 brick and concrete depot.

### Schools

Ala., Anniston—Board of Education, C. H. Young, Sec., sold \$100,000 bonds for erecting \$60,000 grammar school, 22nd and Noble Sts., and \$25,000 addition to Woodstock School.\*

Ark., Fayetteville—University of Arkansas Board of Trustees approved plans by Jamieson & Spearl, Arcade Bldg., St. Louis, and H. Ray Burke, Southern Trust Bldg., Little Rock, for agricultural and engineering buildings to cost \$650,000; other buildings planned are: Women's buildings, stadium to seat 60,000, library, group of home economics buildings and auditorium.\*

Fla., Fort Myers—Olin M. Alexander, Anniston, Ala., purchased 20,000-acre tract; reported planning establishment of agricultural and mechanical college.

Fla., Jacksonville—Duval County Board of

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



Public Instruction erect 8-room addition to school building in Panama Park (Br. of Jacksonville).

Fla., Jacksonville—Duval County Board of Public Instruction, G. Elmer Wilbur, Supt., probably call for bids within 2 weeks for two \$400,000 senior high school buildings in Riverside and Springfield; Mark & Sheftall, Archts., 210 Clark Bldg.\*

Fla., Lake Worth—Trustees of Lake Worth Schools have plans by Harry Bennett for 2-story South End School, K St.; 6 classrooms on each floor, with principal's room, rest room, teachers' room, etc.

Fla., Palatka—Putnam County Board of Public Instruction, C. H. Price, Supt., probably call bond election for colored school building.

Fla., Palmetto—City Council considering \$100,000 bond election for school improvements.

Fla., Tavares—Tavares School District voted \$150,000 bonds for 225x175 ft., 1-story, stucco finish High School building; Lockwood & Poundstone, Archts., Forsyth Bldg., Atlanta, Ga.; address Prof. D. H. Moore, Supt. Lake County Schools.\*

Ga., Milledgeville—Board of Managers of Georgia Training School for Boys, John R. L. Smith, Bibb Bldg., Macon, completed plans for erection of manual training department building.

Ga., Nashville—Berrien County Board of Education soon call bond election for erecting \$50,000 High School; plans another election for new building at Alapaha.

Ga., Waycross—Young Woman's Auxiliary of Piedmont Institute, Miss Alma Gillis, Pres., plans campaign for \$20,000 for new boys' dormitory.

La., Arabi—St. Bernard Parish School Board has plans by Wm. R. Burk, Archt., Balter Bldg., New Orleans, for \$20,000, 2-story, hollow tile and concrete school building; J. C. Blanchard, Supt.\*

La., Baton Rouge—East Baton Rouge Parish School Board have plans and specifications by Wogan & Bernard, Archts., Old Raymond Bldg., Baton Rouge, and Perlin Bldg., New Orleans, in about 30 days for \$200,000, 3-story, brick, fireproof elementary school building on Bernard Terrace.\*

La., New Orleans—Orleans Parish School Board authorized \$2,500,000 bond issue for construction of 9 new schools and 3 annexes.

La., New Orleans—Orleans Parish School Board soon have completed plans by E. A. Christy, Supv. Archt. of Board, for 3-story, face brick, reinforced concrete and cast stone exterior McDonough No. 9 School, Rochelave and Onzaga Sts.; 23 classrooms, kindergarten, printing and pattern shops, cafeteria kitchen, etc.

Miss., Jackson—Hinds County Board of Supervisors will sell \$150,000 bonds for improving and enlarging Agricultural High School; J. M. Spain, Archt., Millsaps Bldg.\*

Mo., Columbia—Curators of University of Missouri receive proposals until Dec. 1 for construction of stadium; plans and specifications may be obtained from Edward E. Brown, Bus. Mgr., or Jameson & Spearl, Archts., 1116-26 Arcade Bldg., St. Louis.\*

Mo., Mexico—City votes Nov. 23 on \$300,000 bonds for new high school and other improvements; Board of Education.\*

N. C., Durham—Duke University plans establishment of medical school provided in will of James B. Duke; \$4,000,000 for establishment and \$6,000,000 for endowment.

N. C., Durham—Durham County Board of Education considering erecting two additional consolidated high schools.

N. C., Hillsboro—Atwood & Nash, Archts., Trust Bldg., Durham, advise, "No school buildings authorized as yet" for Orange County Board of Education."

N. C., Salemburg—Pineland School for Girls and Junior College for Young Women, Rev. and Mrs. W. J. Jones, principals, plans additional equipment and new building.

Okla., Norman—University of Oklahoma, Dr. W. B. Blizzell, Pres., contemplates erecting \$50,000 campanile at entrance of campus.

Okla., Oklahoma City—Oklahoma City University has preliminary plans under way by Bailey & Alden, Columbia Bldg., for gymnasium.

Tenn., Jefferson City—School Board purchased lot on Russell St. as site for \$40,000 high school; gymnasium in basement; start work in two weeks.

Tenn., Jonesboro—Board of Education let contract to Pyle Brothers, Kingsport, for \$50,000 brick school building; 15 classrooms,

gymnasium 40x60 ft., auditorium with balcony to seat 800, etc.; D. R. Beeson, Archt., Johnson City.\*

Tex., Austin—Board of Regents of University of Texas endorsed building program calling for \$250,000 power building; Herbert M. Green, Archt.; Hal C. Weaver, Mech. Engr., 2318 Trinity St.; work begin in spring.

Tex., Big Sandy—Big Sandy School Dist. voted \$35,000 bonds for school building; address Board of Trustees.

Tex., Fort Worth—Board of Education adopted Junior High School System, proposed by Superintendent Moore, calling for erection of 5 junior high schools at \$250,000 each, provided in \$2,000,000 bond issue.\*

Tex., Plainview—Board of Trustees of Wayland College appointed committee composed of J. Pat Horton, Frank R. Day and E. H. Perry select plans for \$100,000 girls' dormitory.\*

Tex., Sherman—Kidd-Key College, Dr. E. L. Spurlock, Pres., break ground next spring for administration building.

Tex., Sherman—Austin College, T. S. Clyce, Pres., soon have preliminary plans for \$175,000, 2-story, brick, stone, reinforced concrete, fireproof Administration Building; Clyce & Rolfe, Archts., 306 Commercial Bank Bldg., Sherman; C. D. Hill & Co., Asso. Archts., 801 Central Bank Bldg., Dallas.\*

Tex., Wichita Falls—Board of Education, W. W. Brown, Sec., selected Voelcker & Dixon, 312 Morgan Bldg., prepare plans for \$200,000, brick, stone and reinforced concrete Junior High School building, Polk and Taylor Sts.

Va.-Tenn., Bristol—School Board soon start work on \$150,000 Fairmont School building; plans completed by Clarence B. Kearfoot, Archt., and approved by Wm. B. Ittner, Conslt. Archt., Board of Education Bldg., St. Louis, Mo.

Va., Luray—School Board plans to enlarge school building.

Va., Martinsville—Martinsville Council petitioned Henrico County Circuit Court, Danville, call election Dec. 5 on \$150,000 bonds, including \$45,000 for new school.

Va., Richmond—University of Richmond, F. W. Boatright, Pres., have plans ready for contractors in 2 months for \$100,000 chemistry laboratory; Cram & Ferguson, 248 Boylston St., Boston, Mass., Supervising Archts. of University; Charles M. Robinson, Inc., local Archts., Times-Dispatch Bldg.\*

W. Va., Huntington—Board of Education and Park Board plan to erect first section of stadium, between Charleston and Columbia Aves. and 14th and 15th Sts.

### Stores

Ala., Birmingham—Dr. James C. McLester, 930 S. 20th St., has permit for alterations and repairs to 2-story, brick store, Morris Ave. and 21st St.; \$15,000.

Ala., Gadsden—F. R. Allison erect 50x100 ft. business house on Sixth St.

Ala., Huntsville—Huntsville Land Co. has completed plans by D. A. Dickey for 2-story, 45x140 ft. building, Jefferson St., to be occupied by Holmes Furniture Co.

Ark., Little Rock—Little Rock Furniture Co., 1498 E. Second St., erect \$12,000 annex to store.

Ark., Saffell—Holly and Cecil Saffell erect store building.

Fla., Coral Gables—Nelson-Pedley Construction Co., Philadelphia, Pa. (See Hotels and Apartments.)

Fla., Coral Gables—Wecker & Pariken erect \$25,000 store and apartment building, 103 Avenue Navarre.

Fla., Daytona—Country Club Development Co., C. M. Wilder, Pres., erect business buildings. (See Hotels and Apartments.)

Fla., Leesburg—G. R. Sims announced plans for remodeling Needham Block.

Fla., Miami—George B. Newland and S. D. Wakefield erect \$10,000 two-story building, S. E. Sixth St.

Fla., Miami Beach—Herbert L. Beach of Beach Realty Co., Miami Beach Casino, announced plans for commercial building, Everglades Blvd. on Isle of Normandy.

Fla., St. Petersburg—J. H. Rutland, Pres. of Northrup-Rutland Co., 501 Central Ave., leased property S. E. cor Seventh St. and Central Ave.; planning erection of five-story department store building.

Fla., St. Petersburg—Fred T. Smith, 610 Central Ave., erect \$18,000, 2-story, brick and tile store building, Fourth Ave.

La., Monroe—Walker Brothers, 228 De

Siard St., erect \$10,385 grocery store building, Olive and Third Sts.

La., New Orleans—Weiss & Dreyfous, Archts., Maison Blanche Bldg., started preliminary plans for alterations to store building, Canal and Carondelet Sts., for U. Koen & Co.; \$20,000.

Md., Baltimore—Middleman & Weise, 102 Commerce St., acquired property on Reisterstown Road near Church Lane, plan to erect 8 stores and service station.

Mo., Kansas City—George Boden, 3611 Indiana St., has plans by Wilkinson & Crans, 608 Interstate Bldg., for L-shaped building, 36th St. and Indiana Ave.; include theater to seat 1000, lobby, store rooms, lounge, etc.; brick, steel and terra cotta, faced with terra cotta up to second floor, cornice of polychrome terra cotta, Italian renaissance type.

N. C. Winston-Salem—B. F. Huntley Furniture Co., Patterson Ave., erect \$25,000 addition to building on Patterson Ave.

Tenn., Knoxville—Ellis-Ernest Drug Co., 1429 N. Broadway, erect 2-story, brick drug store building, W. Cumberland Ave. and 15 St.

Tex., Breckenridge—J. J. Taylor has plans in progress by David S. Castle Co., Abilene, for \$10,000, 25x100 ft., 1-story, brick store building.

Tex., Uvalde—L. Schwartz Co. has plans in progress for new business building.

W. Va., Martinsburg—Kirkson Brothers purchased property, S. E. cor. Queen and Martin Sts., plan to remodel and add another story; work after March 1.

### Theaters

Fla., Miami Beach—Bert Schreiber erect \$12,000 open-air theater. (See Buildings Proposed—Hotels and Apartments.)

Fla., Palm Beach—Paris E. Singer, Palm Beach, Florenz Ziegfeld, 214 W. 42d St., New York, and others reported interested in erection of theater on Lake Worth, for indoor and outdoor performances; Joseph Urban, Archt., care Mr. Singer, Palm Beach.

N. C., Troy—J. C. Hurley has plans in progress for brick theater building on Main St.

Tenn., Nashville—Marcus Loew Theatrical Interests, Marcus Loew, Pres., 1540 Broadway, New York, expend \$50,000 for redecorating and refurbishing Loew's Vendome Theater.

### Warehouses

Fla., Coral Gables—Coral Gables Lumber and Supply Co. erect \$32,000 store, warehouse, office and apartment building, 224-6 Alhambra Plaza; Martin Hauri, Archt., 39 S. E. 6th St.

Fla., Coral Gables—Robbins Roofing Works, 1350 N. E. First Ave., erect \$26,000 warehouse in industrial section.

Fla., Miami—Melrose S. Avery, Inc., 14 N. W. Seventh St., plans to erect 120x90-ft. warehouse. (See Machinery Wanted—Conveyor.)

Fla., St. Petersburg—Miss Ruth E. Merritt erect \$13,000 two-story brick and tile, 51x100 ft. warehouse, 12th Ave. South.

Ga., Valdosta—China-American Tobacco Co. plans to enlarge warehouse.

Md., Baltimore—Swift & Co., Eutaw and Camden Sts., soon let contract for \$80,000, 4-story, brick and concrete, 30x100 ft. warehouse.

Miss., Gulfport—Bonded Warehouse & Storage Co., care John A. Sykes, selected W. C. Lester, 7 Arcade Bldg., Memphis, Tenn., for \$200,000, 5-story, reinforced concrete, fireproof warehouse with refrigeration plant annex.\*

S. C., Dillon—Dillon County Chamber of Commerce appointed committee to form corporation for erecting tobacco warehouse.

S. C., Greenville—Aldermen W. Lindsay Wilson, J. H. Huff and Mills Hunter compose committee for erection of city warehouse.

Tenn., Knoxville—McGinley Produce Co., Western and Grand Aves., plans to erect 126x30 ft., 3-story, brick warehouse.

Tex., Dallas—Wholesale Merchants Co. soon let contract for \$450,000, 8-story and basement, reinforced concrete, 95x125-ft. wholesale merchants building, Commerce and Poydras Sts.; cement floors, tar and gravel roof; Lang & Wittell, Archts., 300 American Exchange Bank Bldg.\*

Tex., San Angelo—Walker Smith Co., Sam Dowty, local Mgr., reported to rebuild wholesale grocery building on W. Fourth St., recently burned at \$115,000 loss.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

# BUILDING CONTRACTS AWARDED

## Association and Fraternal

La., New Orleans—Salt Lake Marble & Supply Company of Texas has contract at \$97,109 for marble and tile work in \$2,225,000 Masonic Temple, St. Charles Ave. and Perido St.; Sam Stone, Jr., Archt., 714 Union St.; James Stewart & Co., Inc., Contr., 408 Pine St., St. Louis, Mo.\*

Tex., Austin—Lone Star Chapter No. 6, Royal Arch Masons, let contract at \$79,111 to Keger-Brooks Construction Co., 703-04 Builders Exchange Bldg., San Antonio, for temple; heating, J. O. Andrewartha, 105 E. Ninth St., \$4272; plumbing, \$4474, and electric work, \$1643, Harper & Linscomb Plumbing & Electric Co., 204 W. 13th St., both Austin; 2 stories, brick, stone and reinforced concrete, 60x100 ft., fireproof; J. B. Davies, Archt., 1308 Hemphill St., Fort Worth, and W. E. Ketchum, Asso. Archt., Pope Bldg.\*

## Bank and Office

Fla., Arcadia—Florida Trust & Banking Co. erect \$40,000 building; Arcadia Cabinet & Building Co. (Ralph F. Cannon, Prop.), Contr.; no sub-contracts, material by Contr.\*

Fla., Tampa—Consolidated Amusements, Inc.; \$1,000,000, 10-story Tampa Theater and Office Building; John Ebersson, Archt., 212 E. Superior St., Chicago, Ill.; George A. Miller Co., Contrs., Petteway Bldg. (See Contracts Awarded—Theaters,)\*

La., New Orleans—Texas Co. let contract at \$104,533 to W. Horace Williams Co., Inc., 816 Howard Ave., for reinforced concrete, brick and steel office building and filling station, St. Charles Ave. and Lee Circle; 3 stories, composition roof, marble and cement floors, steam heat, oil burning equipment, stucco and plastering; Rathbone DeBuys, Archt.; Juan G. Landry and Albert L. Thread, Asso. Archts., all Hibernia Bldg.\*

La., New Orleans—A. F. Commagere, 910 Gravier St., and others, let contract to W. Horace Williams Co., 816 Howard Ave., for foundation of 2,000,000 Pere Marquette Bldg., Baronne and Common Sts.; S. Scott Joy, Archt., 2001 W. Pershing St., Chicago, Ill.; Wm. E. Spink, Asso. Archt., Canal-Commercial Bldg.\*

La., New Orleans—O. M. Gwin Construction Co., 832 Common St., has permit for \$15,000 office building, Poydras St. and St. Charles Ave.

Miss., Hattiesburg—Fifth Avenue Baptist Church laying foundation for \$18,000 brick, frame and stucco building; 2 stories, 80x95 ft., edge grain pine floors, cement tile and built-up roof; address proposals on furnishings, etc., to Rev. R. A. Youngblood; E. C. Hearon, Archt.-Contr., Box 587. (See Machinery Wanted—Heating System,)\*

Mo., St. Louis—Washington Grand Realty Co., 105 N. Eighth St., erect 3-story store and office building, 516-18-20-22 N. Grand Blvd. and 3546-54 Washington St.; brick, 77x92 ft., composition roof, steam heat, cost \$110,000; Egerton J. Bradshaw, Archt., International Life Bldg.; Selden-Breck Construction Co., Contr., 1108 Fullerton Bldg.

Tenn., Kingsport—Wm. & David Roller have contract for 5-story office building; foundation in; steel frame, local rough-faced brick, buff stone trim, concrete, tile and linoleum floors, high-speed elevators; Manley, Young & Meyer, Archts., Knaffle Bldg., Knoxville.

Tex., Corsicana—First Methodist Church, C. L. Jester, Chmn. Bldg. Comm., let contract for \$75,000 Sunday school building to J. S. Harrison Construction Co., Liberty National Bank Bldg.; Waco; brick, stone and reinforced concrete, 2 stories and basement, 70x120 ft.; R. H. Hunt Co., Archt., James Bldg., Chattanooga, Tenn., and S. W. Life Bldg., Dallas, Tex.\*

## Churches

Ala., Birmingham—First Baptist Church let contract to E. G. Holladay Co., 151 Fourth Ave. North, Nashville, Tenn., for 6-story Sunday school building; cost \$150,000; structure to be convertible for office building.

D. C., Washington—Roger Williams Memorial Baptist Church, 16th St. and Colorado Rd. N. W., let contract to Davis Wick Rosen-garten Co., 1406 G St. N. W., to complete interior of building; cost \$100,000, 1 story, stone; Egerton Swartwout Archt., 18 W. 34th St., New York; heating and plumbing, Standard Engineering Co.; electric work, E. C. Gramm, 1900 14th St. N. W.\*

La., Baton Rouge—First Church of Christ, Scientist, let contract at \$20,325 to Albert

Tolle, Hammond, for brick veneer building, 50x70 ft., built-up composition roof; Jones, Roessle & Olschner, Archts., Maison Blanche Bldg., New Orleans, and Ardis Bldg., Shreveport.\*

La., Bunkie—St. Anthony R. C. Church let contract at \$49,000 to E. E. Rabalais for building; 1 story and basement, 70x124 ft., brick, tile and reinforced concrete, composition and tile roof, wood and concrete floors; Wm. R. Burk, Archt., Balter Bldg., New Orleans.\*

La., New Orleans—Winston Bros., Pythian Temple, Saratoga and Gravier Sts., has plastering contract for \$50,000 Leopold Well Educational Bldg., for congregation of Gates of Prayer; roofing, A. H. White Roofing Co., 3520 New Basin St.; sheet metal work, Standard Sheet Metal Works, Inc., 635 S. Peters St.; cast stone, Architectural Cast Stone Co., 8122 Colapissa St.; structural steel, Ingalls Iron Works, City Bank Bldg.\*

Mo., Clayton (Ind. Branch St. Louis)—Overland Presbyterian Church Assn. erect \$15,000 brick church, Emerson and Burrs Sts., S. Overland; 36x62 ft.; Ruthony Walter, Contr., 8612 Argyle St., St. Louis.

Okla., Oklahoma City—First Methodist Church let contract to H. E. Gross, 2822 W. 13th St., for \$70,000 church and Sunday school building; heating and plumbing, A. F. Binns, 809 W. Grand St.; Gothic type, brick and Bedford stone, 3 stories and roof garden, composition roof, concrete floors and foundation, hollow tile, metal doors; auditorium seat 350, 16 classrooms; Harry Reynolds, Archt., 240 Terminal Arcade Bldg.\*

S. C., Clinton—Lutheran Church let contract to J. E. Cannon, 4120 Main St., for brick veneer building, Hampton Ave.; J. B. Urquhart, Archt., Palmetto Bldg., both Columbia.

S. C., Spartanburg—Second Presbyterian Church let contract to J. M. Crawford, Union, for \$35,000 building, College and North Sts.; seat about 600; Casey & Fant, Archts.\*

Tex., Port Arthur—First Presbyterian Church let steel work contract to H. W. McCord, Woolworth Bldg., for \$50,000 unit of \$150,000 building; hollow tile and brick, 9 stories; Livesay & Wiedemann, Archts., 607 San Jacinto Life Bldg., Beaumont.\*

## City and County

Fla., Leesburg—City let contract at \$66,800 to J. J. McDevitt Co., First Natl. Bank Bldg., Chattanooga, Tenn., and Charlotte, N. C., for city hall; 3 stories, 80x46 ft., brick, composition built-up roof, slab rubber tile, linoleum and concrete floors, concrete foundation; Alan J. McDonough, Archt.; W. L. Chafin, Asso. Archt.\*

Fla., Miami—Atlantic Terra Cotta Co., 350 Madison Ave., New York, has sub-contract for architectural terra cotta for \$2,250,000 Dade County fireproof courthouse; A. Ten Eyck Brown, Archt., Forsyth Bldg., Atlanta, Ga., and Miami; August Geiger, Asso. Archt., 8-9 Hippodrome Bldg.; L. W. Hancock, 684 N. W. Seventh St., Miami, and Louisville Trust Bldg., Louisville, Ky.\*

Fla., Miami—A. M. La Salle, 33 S. E. First Ave., started foundation for \$22,000, hollow tile (frame interior) residence, S. W. Fourth St., near 27th Ave.; 2 stories, oak and pine floors, concrete foundation, Spanish tile roof; E. A. Ehmman, Archt., 100 Congress Bldg.

Ga., Columbus—City, Dan Dull, City Engr., let contract to C. F. Williams, 1535 Pine St., for fire alarm station; equipment to Gamewell Fire Alarm Telegraph Co., Peters Bldg., Atlanta.\*

Ga., Jessup—City let contract to Chauncey Construction Co. for \$20,000 city hall; brick, 1 story, about 60x60 ft., hardwood floors, brick foundation, Cartwrights metal slate roof, vaults, metal ceilings; Percy Sugden, Archt., 125 E. 49th St., Savannah.\*

N. C., Charlotte—City Commission let contract at \$17,500 to J. A. Gardner, 211½ N. Tryon St., for fire station, Fifth St., near Graham St.; C. C. Hook Archt., Johnston Bldg.; plumbing, Tompkins-Johnston Co., 4 N. Brevard St., \$949; heating, Chas. W. Christian, Myers Park, \$1300.\*

Tex., Breckenridge—Stephens County let contract at about \$380,000 to Walsh & Burney, 928 S. Flores St., San Antonio, for courthouse and jail building; fireproof, brick, limestone, terra cotta and reinforced concrete, 4 stories and basement, 160x180 ft., quarter sawed oak and black walnut interior trim, 8-ft. marble wainscoting in corridors and main stairs, 2-in. Ohio flint

tile corridor floors, other floors battleship linoleum and maple, elevator; Davis S. Castle Co., Archt., 20 Radford Bldg., Abilene, and 1005 Mercantile Bank Bldg., Dallas.\*

## Dwellings

Fla., Avon Park—U. S. Senator Park Trammell let contract for dwelling, Cornell St., to J. H. McClelland; plans 9 additional dwellings; cost \$4000 to \$5000 each.

Fla., Coral Gables—Rollie F. Swank, 647 N. W. 37th St., erect \$18,000 residence, 1036 Avenue Andalusia; C. W. Nicodemus, Contr., N. W. 17th Terrace.

Fla., Coral Gables (Branch Miami)—Dr. W. B. Ryan erect \$25,000 residence, 803 Avenue Altamari; 2 baths; 2-car garage with living quarters above; Webb & Meyers, Archt.; Coral Gables Construction Co., Contr.

Fla., Coral Gables (Branch Miami)—Cecil Watson erect \$26,000 residence, Salzedo Court and Alameda Terrace; Coral Gables Construction Co., Contr.

Fla., Coral Gables (Branch Miami)—E. A. Ehmman, Archt., 100 Congress Bldg., Miami, advises did not draw plans for residence, Avenue Velarde, for M. S. Baker, as lately reported.\*

Fla., Coral Gables (Branch Miami)—M. S. Backer, Jr., erect \$15,000 residence, 1002 Capri St.; 2 stories; Arthur R. Smith, Contr.

Fla., Coral Gables (Branch Miami)—Wm. A. Donahue erect \$10,500 residence, 810 Avenue Messina; owner superintends.

Fla., Coral Gables (Branch Miami)—Lou Goodman erect \$12,000 residence, 1149 Avenue Milan; Woods & Tracey, Archts., Halcyon Arcade; David Shaw, Contr.

Fla., Coral Gables (Branch Miami)—Fred Grinham erect \$13,000 residence, 1336 Avenue Obispo; Henry Sukup, Contr.

Fla., Coral Gables (Branch Miami)—Claude Meyers erect residence, Tamiami Place; cost about \$10,000; plans by owner; Louis Fouts, Contr.

Fla., Coral Gables (Branch Miami)—J. M. Nicrosi erect \$10,000 residence, 748 Alhambra Circle; A. R. Patrick, Archt.; Abbott & Patrick, Contrs.

Fla., Coral Gables (Branch Miami)—R. M. Robinson erect \$11,000 residence, 805 Avenue Venetia; Wilbert Harborn, Archt.-Constr. Supervisor.

Fla., Coral Gables (Branch Miami)—David E. Sheehan erect \$32,000 residence, 1115 N. Greenway Drive; 2 stories, 8 rooms; Louis D. Brumm, Archt.; Theo. Randmetz, Contr., 1000 N. W. 10th Ave.

Fla., Coral Gables (Branch Miami)—Rollie F. Swank erect residence, 1036 Avenue Andalusia; H. Geo. Fink, Archt., Congress Bldg., Miami; E. W. Nicodemus, Contr.

Fla., Coral Gables (Branch Miami)—Gheen R. Abbott erect 2 dwellings, 315-17 and 323-25 Avenue Velarde; Woods & Tracey, Archts., Halcyon Arcade, Miami; owner superintends.

Fla., Coral Gables (Branch Miami)—J. F. Moore, 244 S. W. 14th Ave., erect \$14,000 residence, 3920 Avenue Palmarito; Chas. P. Nieder, Archt., Calumet Bldg., Miami; owner builds.

Fla., Dade City—Dr. M. L. Tannenbaum erect 20 dwellings, off Fort King Rd.; 6 and 10 rooms; also erect dwelling, E. Church St., Burnett Place Addition; Chas. Lees, Constr. Supervisor.

Fla., Davenport—Emmett Nicholson and others erect number dwellings; cost \$7500 to \$35,000 each, concrete, stucco, tile, etc., oak, pine, cement and tile floors, concrete foundation, Spanish and composition roofs, hollow and interior tile, plaster board, metal doors, vaults, wood block floors, mail chutes, ventilators, ornamental terra cotta, steel sash and trim; plans and construction by Mr. Nicholson; plumbing, McKarny Plumbing Co., Sarasota. (See Contracts Awarded—Hotels and Apartments, Stores; also Machinery Wanted—Building Material; Construction Equipment; Building Contractor's Equipment,)\*

Fla., Daytona Beach—George A. Rubin Realty Co., Fred Firestone, Mgr., Daytona Office, erect 15 dwellings; 5 rooms; total cost \$142,000; contract let; owner also erect 12 dwellings, New Smyrna.

Fla., DeLand—Geo. B. Fletcher, Philadelphia, Pa., erect 25 dwellings; Irving Haum, Contr., Jacksonville.

Fla., Delray—F. J. Brainard, New York, and Western Union Bldg., Delray, let contract for 4 dwellings, Del-Raton Park, 1 N. Swinton Ave., and 2 N. First Ave.; others later.

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Fla., Fort Myers—Dr. B. Whelan erect \$16,000 residence, Seminole Park; brick veneer, airplane roof; L. J. Van Duyl, Archt.-Contr.

Fla., Homestead—Glenn Marchbanks has contracts for several dwellings, Porvenir St.

Fla., Homestead—Ed Hiner erecting \$10,000 residence, Porvenir St.; Glenn Marchbanks, Contr.

Fla., Homestead—John Harris, Jr., erecting \$10,000 residence, Porvenir St.; Glenn Marchbanks, Contr.

Fla., Howey—C. H. Emery erecting \$15,000 residence.

Fla., Howey—P. N. Pruett, C. N. Edwards, P. M. Van Ess and Wm. I. Graham erecting residences.

Fla., Jacksonville—Majestic Homes Corp., 4935 Delmar St., St. Louis, Mo., developing Florida Beach, reported receiving plans (already drawn) from architects for Spanish, Moorish and Mediterranean type dwellings.

Fla., Jacksonville—W. W. Reed, 1538 Park St., erect \$23,000 brick veneer residence, Park St. near Aberdeen St.; 2 stories, oak floors, composition shingle roof, concrete foundation; Marsh & Saxelby, Archts., Consolidated Bldg.; Chas. J. Davis, Jr., Contr., St. James Bldg. (Mr. Davis lately noted owner); heating, plumbing and electric work let.\*

Fla., Jacksonville—W. H. Davis erect 15 dwellings, Murray Hill, upon completion of 10 under construction.

Fla., Jacksonville—Fred Thellman, 414 Biscay Bldg., erecting number apartments and bungalows; plans call for 35; hollow tile, hardwood floors.\*

Fla., Lake City—Gordon Ware, Inc., Lake City and Jacksonville, started work on 25 bungalows; Country Club Estates; cost about \$3500 each, 5 and 6 rooms.

Fla., Lake Wales—Dr. H. R. Brownlee let contract to Cleveland, Ohio, Construction Co. for 20 dwellings.

Fla., Marianna—Gainer & Smith, Jas. A. Smith, Sec., erect about 10 dwellings near Marianna; owners build.

Fla., Miami—F. L. Cannon erect dwellings, Tropics subdivision.

Fla., Miami—Tropic Subdividers & Developers, Inc., 229 Halcyon Arcade, erect 10 dwellings near Biscayne Rd.; Thos. L. Holland Co., Contr.

Fla., Miami—Seyer-Hansen Construction Co., 1362 N. E. Second Ave., erect 10 bungalows, E. Dixie Park; Spanish type, 6 rooms and garage; sell for \$10,000 to \$12,000 each; owner builds.

Fla., Miami—S. Nabbellink erect \$10,000 residence, S. W. 12th St., near 16th Ave.; 1 story, stucco and concrete; J. E. Griffin, Archt.; J. M. Knight, Contr., Commercial Bank Bldg.\*

Fla., Orlando—Fred L. Housholder, Rose Bldg., erect residence, 619 Harwood St.; 2 stories, 33x40 ft., gable composition roof, cost about \$10,000; W. L. Zinn, Contr.

Fla., Orlando—J. H. Hudson, Amherst Apts., erect \$14,000 residence, Park Lake and Highland Sts., Lenters Sunshine Park; 2 stories, 52x30 ft., flat tile roof; Jerry Ahern, Contr.

Fla., Orlando—Jas. Kincaid, W. Central Ave., erect 2 bungalows, Thornton Park; 34x38 ft., composition hip and gable roofs; total cost about \$10,000; John H. French, Contr., 637 E. Colcord St.

Fla., Orlando—Morris Smith erect residence, Whittier Circle, Copeland Park; cost about \$10,000; Don Holland, 452 Cherokee Blvd., Contr.

Fla., Orlando—Don Holland erect English type residence; stucco, shingle roof; plans and construction by owner; landscaping by Superior Landscape Service.

Fla., Sanford—Irving Finchel & Sons Contracting Co., New York, erect 40 dwellings, Howard-Overland subdivision; Moorish and Spanish types; material for 7 on ground.

Fla., St. Augustine—St. Augustine Building Co. erect number dwellings; work started on some; frame, cost \$5000 to \$10,000 each, 1 and 2 stories, 25x40 ft. and up, oak and pine floors, plain concrete foundation, composition shingle roofs, interior tile, plaster board. (See Machinery Wanted—Building Material.)\*

Fla., Verna—W. A. Robinson, Verna, and V. E. Dutwillig, New York, erecting 16 stucco bungalows.

Ga., Columbus—Dr. W. F. Jenkins, City Hospital, erect \$12,000 residence, Flournoy subdivision; Williams Lumber Co., Contr., 13th St.

Ga., Columbus—Bass Lewis erect residence, Wynnton Circle; cost about \$10,000; Williams Lumber Co., Contr., 13th St.

Ga., Columbus—Chas. Pekor erect \$11,000 residence, Wynnton; Williams Lumber Co., Contr., 13th St.

La., New Orleans—Acme Homestead Assn., 802 Poydras St., erect \$10,000 raised duplex, Franklin and Milan Sts.; Walter W. White, Contr., 3508 Magazine St.

La., New Orleans—Eureka Homestead Society, 451 Camp St., erect \$10,000 building, Eliza and Evelina Sts.; Theo. J. Lawson, Contr., 1624 Newton St.

La., New Orleans—Greater New Orleans Homestead Assn. erect \$12,000 duplex, Fern and Burdette Sts.; Denis & Handy, Contrs., Perdido Bldg.

La., New Orleans—Morris Delatte, 2224 Law St., plans 6-room double cottage, Touro and Law Sts.; will receive sub-bids.

La., Shreveport—R. O. Roy, Slattery Bldg., erect \$50,000 residence, Thornhill St. and Kings Highway; 2 stories and basement, 10 rooms, reinforced concrete, brick and stone, tile roof; Edw. F. Neild, Archt., Merchants Bldg.; Central Contracting Co., Contr., Ardis Bldg.

Md., Brooklyn—W. G. Finch erect 10 brick dwellings, Annapolis Rd. and Washington St.; 2 stories, 18x20 ft., slag roofs; total cost \$20,000; J. O. Blair, Archt., 3613 Grantley Rd.; owner builds.

Md., Baltimore—D. Albert Slade Building Corp., Fitch Ave. and Belair Rd., erect 5 concrete block bungalows, Hamilton Court near Gibbons Ave.; 1½ stories, 20x34 ft., hot water heat; total cost \$18,000; R. C. Brockmeyer, Archt., 1665 N. Milton St.; owner builds.\*

Md., Baltimore—Square Deal Construction Co., 43 Gunther Bldg., Frank E. Schad, Pres., erect about 300 dwellings, Druid Park Drive and Green Spring Ave. section; 2 stories; Wm. D. Jean, Archt.; Mr. Jean and Wm. D. Webb, Constr. Engrs., both 43 Gunther Bldg.

Md., Baltimore—Thos. Mullan, 3945 Greenmount Ave., erect 10 dwellings, Gorsuch Ave. and 17. Carswell Ave.; 2 stories, brick; total cost \$111,000; N. A. Kline, Archt.; owner builds.

Md., Baltimore—City Real Estate Co., 11 E. Fayette St., erect 17 bungalows, beginning 3304 Richmond Ave., 1 story; total cost \$30,000; Geo. Wessel, Archt., 3001 Lytleton Rd.; owner builds.

Md., Baltimore—Miller-Nelson, Inc., Belair Rd., erect 3 concrete block dwellings, Franklin and Walter Aves.; total cost \$15,000; plans and construction by owner.

Md., Baltimore—George R. Morris Organization, Morris Bldg., erect 2½-story frame dwelling, 3319 Dorchester Rd.; plans and construction by owner.

Md., Baltimore—Arthur Richmond, Erdman Ave., erect frame cottage, 3229 Richmond Ave.; 2½ stories; S. G. Reinecker and Mr. Burton, Archts.-Contrs.

Mo., Cape Girardeau—W. H. Campbell erect residence; Union Realty Co., Contr.

Mo., Dutehtown—H. F. Schulenberg erect residence; Boren Bros., Contrs., Cape Girardeau.

Mo., Kansas City—W. B. Kirkendall, 3409 Broadway, started work on 11 bungalows, Euclid Ave. near 53rd St.; owner builds.

Mo., St. Louis—L. A. Bosso, 107 N. Seventh St., erect 4 brick dwellings, 4400-04-08-10 Kingshighway; 2 stories, 19x38 ft., composition shingle roofs, furnace heat; total cost \$16,000; J. D. Meagher, Archt., 5916 Washington St.; owner builds.

Mo., St. Louis—B. Goldstein, 5554 Delmar Blvd., erect 2 brick dwellings, 4844-48 Kingshighway, N. E.; 1 story, 24x42 ft., asphalt shingle roofs, hot air heat; total cost \$10,000; L. Horst, Archt., 5031 Davison St.; B. Ossowsky, Contr., 1019 Ellier St.

Mo., St. Louis—J. F. Hanneke, 5527 Southwest St., erect \$14,000 residence, 6584 Arsenal St.; brick, 2 stories, 30x53 ft., slate roof; O. J. Krieg, Archt., 1003 Arcade Bldg.; C. W. Schuler & Co., Contr., 2838 Texas St.

Mo., University City (Station St. Louis)—H. M. Edmunds, 4365 Forest Park St., erect brick residence and garage, 7155 Westmoreland St.; 2 stories, 31x43 ft., tile roof, oil heat; Chas. Greene, Archt., Seventh and Market Sts.; B. J. Charleville Real Estate & Investment Co., Contr., 114 N. Seventh St.

Mo., University City (Station St. Louis)—H. M. Edmunds, 4365 Forest Park St., erect \$12,000 brick residence, 7246 Westmoreland Ave.; 2½ stories, 50x39.5 ft., slag roof, oil heating; Chas. Greene, Archt., 114 N. Seventh St.; B. J. Charleville Building Co., Contr., 114 N. Seventh St., both St. Louis.

Mo., University City (Station St. Louis)—Oba M. Farrell erect \$12,000 residence and garage, 717 Waterman Ave.; 2 stories, 37x26

ft., brick, composition, tar and gravel (flat) and tile (steep) roof, hot water heat; E. H. Nieman, Archt., 3816 Shaw St.; Henry J. Vollmer, Contr., 3924 N. 20th St., both St. Louis.

Mo., University City (St. Louis)—Guarford Realty & Investment Co. erect 2 brick dwellings, 7044-7048 Northmoor Drive; 2 stories, 27x31.5 ft., slate roofs, hot water heat; total cost \$17,000; Nolte & Nauman, Archts.; R. A. G. B. Bullock, Contrs., all Fullerton Bldg., St. Louis.

Mo., University City (Station St. Louis)—E. B. Ruppenthal, 4201 John St., erect \$10,000 brick residence and garage, 58 Stratford Ave.; 1½ and 1 story, 32x44 ft. and 18x18 ft., tile roof, hot air heat; Wm. F. Cassidy, Archt.-Contr., 3971 Delmar Blvd., St. Louis.

N. C., Asheville—Calvin Claar, 809 N. W. 14th St., Miami, Fla., let contract for residence, Lake View Park.

N. C., Durham—Dr. Roy Roberson started work on \$25,000 residence, Forest Hills; English type, brick, 10 rooms; Milburn, Heister & Co., Archts., Union Savings Bank Bldg., Washington, D. C., and First Natl. Bldg., Durham; Wm. Muirhead, Contr., First Natl. Trust Bldg.

Tenn., Memphis—J. Frazier Smith, Archt., Goodwyn Institute, drew plans for 3 double frame dwellings, 118-29 Cedar, 1056-58 and 1064 N. Second Sts.; cost \$5000 each; Jos. McDonald, Contr.

Tenn., Memphis—J. H. Van Natta started work on English type residence, Center Drive, Hein Park; brick, weathered tile roof, 2 baths; J. Frazier Smith and H. M. Burnham, Archts., Goodwyn Institute.

Tex., Commerce—Curtis Anders erect \$13,000 residence; stucco or brick veneer, 2 stories; Lindsey & Kilmer, Archts., Perkins Bldg., Greenville; day labor; soon ready for sub-bids.

Tex., San Antonio—Mrs. R. Robinson, 605 North St., erect duplex, E. Park Ave. near Jones Ave.; 2 stories, frame, cost about \$10,000; Chas. Brient, Contr., Builders Exchange Bldg.

### Government and State

Tex., Austin—State Board of Control, S. B. Cowell, Chmn., let contract at \$17,000 to R. A. Spears, 1307 Emma St., for remodeling men's dormitory at Confederate Home; plumbing, John Wattinger, 3805 Avenue H, \$2115; heating, Fox & Schmidt Co., 415 W. Sixth St., \$2340; electric wiring, Harper & Linscomb, 204 W. 13th St., \$1258; Gliesecke & Harris, Archts., 207 W. Seventh St.\*

Tex., Comanche—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., let contract at \$38,600, to Deans & Grogan, Thibodaux, La., for postoffice; hollow tile, brick, stucco and steel, 1 story, 50x60 ft., pine and concrete floors, concrete and brick foundation, composition roof, interior tile, metal ceilings and doors, vaults. (See Machinery Wanted—Building Material; Steel (Reinforcing); Iron (Miscellaneous.))

### Hospitals, Sanitariums, Etc.

Ga., Savannah—Oglethorpe Sanatorium add additional story to building; 15 rooms, elevator; remodel second floor; Levy, Clarke & Bergen, Archts., Liberty Bank & Trust Bldg.; Olaf Otto, Contr., Port Wentworth.

La., New Orleans—Société Française de Bienfaisance et Assistance Mutuelle, operating French Hospital, Francois Bildstein, Supt., St. Ann St. near N. Derbigny Rd., alter and erect additions to 3-story brick and 3-story nurses' home; boiler room, passenger elevator, tile flooring, marble work, cement paving, etc.; Diboll & Owen, Archts., Interstate Bank Bldg.; Gervais F. Favrot, Balter Bldg., contract at \$35,478.

Mo., Springfield—Dr. Wilbur Smith, Holland Bldg., let contract at about \$25,000 to Jim Thompson to remodel building, 210-16 N. Jefferson Ave., for Smith, Glynn & Calloway Clinic; elevator; Hawkins & Abbott, Archts., McDaniel Bldg.\*

N. C., Gastonia—North Carolina Orthopedic Hospital let contract to John C. Clemmer & Co. for \$10,000 building for negro children; accommodate 20; hot air heat; White, Streeter & Chamberlain, Archts.

N. C., Lincolnton—Dr. L. A. Crowell completed foundation for \$35,000 to \$40,000 fireproof clinic; 2 stories, 35x100 ft., terrazzo floors, Barrett roof; Louis H. Asbury, Archt., Realty Bldg., Charlotte; H. A. Kistler, Contr., Lincolnton; passenger elevator, Otis Elevator Co., 11th Ave. and 26th St., New York.\*

Tex., Sanatorium—State Board of Control, S. B. Cowell, Chmn., Austin, let contract at \$38,600 to General Construction Co. for office

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building; additions to laundry at \$8900; 2 stories, concrete; wiring, Crowther Electric Co., \$1530 and \$559; both San Antonio; plumbing, \$4670, and heating, \$4463, S. P. Osborn, Abilene; Phelps & DeWes, Archts., Genter Bldg., San Antonio.\*

Tex., Temple—Santa Fe Railway Employees' Hospital let contract to H. D. McCoy, Cleburne, for \$145,000 south wing addition; reinforced concrete, 3 stories, composition and concrete floors, concrete foundation, hollow and interior tile, ventilators; Sanguinet, Staats & Hedrick, Archts., First National Bank Bldg., Fort Worth; heating and plumbing, Hill Brothers & Co., 705 Austin Ave., Waco; electric work, Braden-Hudson Co., 305 E. Commerce St., San Antonio.\*

Tex., Vernon—Dr. T. A. King excavating for \$75,000 hospital; brick walls, metal lumber, concrete and metal trim, 2 stories and basement, 70.1x83.6 1/2 ft., composition floors, concrete foundation, tile roof; Voelcker & Dixon, Archts., 312 Morgan Bldg., Wichita Falls; J. H. Reddick, Contr., Kennedy Bldg., Fort Smith, Archt., and Abilene, Tex.; contracts lately noted for heating, plumbing, elevator and dumb waiter.\*

### Hotels and Apartments

Ala., Birmingham—Blankhead Hotel Co. erect 15-story, concrete and steel, fireproof Blankhead Hotel on Fifth Ave.; 350 rooms each with bath, cost \$1,750,000, including ground, building and furniture; design and construction by H. L. Stevens & Co., Archts. and Engrs., 30 N. Michigan Ave., Chicago, and 522 Fifth Ave., New York.

Fla., Coral Gables—Dr. Barrett let contract to Seier-Hansen for \$60,000, 16-apartment house, 107 Avenue Mendoza; A. F. Schimek, Archt.

Fla., Coral Gables—W. C. Sirman, William H. Andrews, N. W. 29th Terrace, and W. B. Shafer plan erection of 5 apartment houses to cost \$250,000; start work immediately on \$56,000 house, Avenue Mendoza and Salzedo St.; Philip B. Moser, Archt., Law Bldg.; Fuqua Construction Co., Contrs., both Norfolk, Va.

Fla., Coral Gables—Sidonia Apartment Corp., 606 W. Flagler St., Miami, erecting \$40,000 concrete and tile, 40x90 ft. apartment building, 22 Avenue Sidonia; Cuban tile roof, oak floors, concrete foundation, hollow tile, interior tile; Herbert Myers, plumbing; L. W. Fahnestock, Archt.; Leon H. Watson, Inc., builder, both 606 W. Flagler St., Miami.\*

Fla., Coral Gables—Coral Gables Associated Builders' Corp., T. A. and H. A. Kennell, Elgin, Ill., and Chicago, erect 100,000 co-operative apartment house, first unit of \$500,000 program to accommodate 60 families, on Avenue Antiquera between Ponce de Leon Blvd. and Douglas Road; work under supervision of J. Bass, Contr., Minneapolis, Minn.; Phineas E. Paist, Supv. Archt.

Fla., Davenport—Emmett Nicholson and others erect \$300,000 hotel and \$30,000 stores; plans and construction by Mr. Nicholson. (See Dwellings; also Machinery Wanted—Building Material; Construction Equipment; Building Contractor's Equipment.)\*

Fla., Daytona Beach—Lions Club, care I. L. Wetherby, let contract to Herbert Construction Co., American Bank & Trust Co. Bldg., for \$35,000, Spanish type, hollow tile-stucco, 13 five-room apartment house, Grandview and Mason Aves.; W. D. Harper & Co., Archts.

Fla., Daytona Beach—Seabreeze-Daytona Beach Assn. let contract to Willson & Weimer for 2-story, 16-family apartment house, Grandview Ave.

Fla., Fort Lauderdale—D. Kaufman and associates erecting \$90,000, hollow tile and concrete with stucco finish, 2-story, 12-family apartment building in Riviera; Francis L. Abreau, Archt.

Fla., Howey—W. B. Boyce, Contr., started work on \$50,000, 2-story, Spanish-type addition to Hotel Floridan; include new dining room, kitchen, servants' quarters, etc.\*

Fla., Jacksonville—Fred Thellman, 414 Biscay Bldg., apartments. (See Contracts Awarded—Dwellings.)

Fla., Jacksonville—J. H. Faulk let contract to Charles J. Davis, Jr., 319 St. James Bldg., for \$10,000 2-story, brick veneer apartment house, 1400 Forbes St.; oak floors, concrete foundation, composition shingle roof; G. H. Woehleke, 1339 Laura St.; heating and plumbing; S. B. Miller, W. 29th St., electric work.\*

Fla., Jacksonville—James R. Stockton, Vice-Pres. Telfair Stockton Co., 329 Laura St., announced construction under way on two tile, Spanish type, 8-apartment buildings, San Marco and San Jose Bldgs.; Fred T. Ley Co.,

Contrs., 19 W. 44th St., New York, and Consolidated Bldg.

Fla., Lake Butler—King Properties, Inc., Jacksonville, rebuilding hotel for use of employees; also reported interested in erection of 2 other hotels.\*

Fla., Miami Beach—Huron Realty Co. let contract to Spalding Construction Co., 125 E. 46th St., New York, for 3-story arcade building, Fifth St. and Michigan Ave.; contain 35 stores on ground floor, also 32 apartments and 8 hotel rooms; \$750,000, including equipment and site.

Fla., Sarasota—Charles T. Kindt let contract to Leadley Ogden for two 4-apartment houses to cost \$20,000.

Fla., St. Petersburg—Edward Jackson, 101 Fifth Ave., let contract to L. E. Smith, for \$35,000, 3-story, Spanish-type apartment house, Fifth Ave., North and Eighth St.; Lester Avery, Archt., 2 Roser Bldg.

Fla., Tampa—J. W. Hull Plumbing & Heating Co., 1329 Union St., Memphis, Tenn., has contract for plumbing, heating, ventilating and refrigeration work in New Mylevaron Hotel; also low bidder on similar work for \$15,000,000 hotel project in Palm Beach and another proposed hotel for Tampa.\*

Fla., Vero Beach—Vero Beach Construction Co. erect two \$14,000, 2-story, 8-family apartment houses.

Fla., West Palm Beach—E. G. Rupprecht let contract to T. R. Martin for \$22,500, 40x75-ft., tile and stucco apartment house, Iris St.

Fla., West Palm Beach—Frank E. Daily, 350 W. Erie St., heading Chicago syndicate, started work on two apartment houses to cost \$150,000; first to be 3 stories, 6 offices on first floor with 20 apartment units above, on Lamat Ave. and Dixie Blvd.; other for 12 families on Del-Raton Blvd.\*

Fla., West Palm Beach—Vliet Building Co. erect \$20,000, 35x117 ft., tile apartment house, Rosemary Ave., for Dr. C. K. Vliet.

Fla., Zolfo Springs—Zolfo Springs Realty Co. erecting 23-room hotel; plans to erect another in near future.

Mo., St. Louis—R. H. Meyer, 6914 Kingsbury, erect six 2-story, brick, 37x51 ft. tenements, 3666-8-3700-18 Bates St.; \$60,000 gravel roofs, hot air heat; C. R. Greene, Archt., 621 Buder Bldg.; owner builds.

Mo., St. Louis—P. Becker, 2811 Osage St., let contract to Wagner & Neuman, 605 Clara St., for \$11,000, 2-story, brick, 34x52-ft. tenement, 5440-2 Flora St.; tar and gravel roof, steam heat.

Mo., St. Louis—L. Mor. 4911 Emerson Ave., excavating for \$18,000, 2-story, 60x34 ft., double flat building, 4247-9 Euclid St.; composition roof, oak and concrete floors, concrete foundation, mall chutes, ornamental terra cotta, steam or hot water heat; plans and construction by owner. (See Machinery Wanted—Brick; Wiring; Plumbing.)

Mo., St. Louis—P. Sturmfels, 4800 Virginia St., erect 14 two-story, 25x44 ft., brick tenements, 3207 to 47 Delor St.; \$70,000, composition roofs, furnace heat; owner is Archt. and Builder.

Mo., St. Louis—J. Fabick, 2809 Iowa St., erect \$10,000, 2-story, brick, 36x54 ft. tenement, 2821-5 Iowa St.; composition and gravel roof, steam heat; O. J. Popp, Archt., Arcade Bldg.; owner builds.

Mo., St. Louis—R. R. Rosemond, 5342 Quincy St., erect \$10,000, 2-story, brick, 34x52-ft. tenement, 5236 Loughborough St.; tar and gravel roof, hot-air heat; owner is archt. and builder.

Mo., St. Louis—J. E. Paulsen, 4915 Alsace, let contract to H. Kissels Sons, 4411 W. Florissant St., for \$10,000, 2-story, brick, 27x51-ft. tenement, 4913 Alsace St.; asphalt shingle roof, hot-water heat.

Mo., St. Louis—M. & E. Farloni, 2600 Blenden Place, erect \$14,000, 2-story, brick, 35x55-ft. tenement, 2634 McCausland St.; tar and gravel roof, steam heat; F. G. Avis, Archt. and Builder, 1905 Forest St.

Mo., St. Louis—W. L. Heckmann, Seventh and Chestnut Sts., let contract to V. A. Chinberg, 808 Chestnut St., for \$18,000, 2-story, brick, 51x48-ft. tenement, 4418-20 Rosalie St.; composition roof, hot-air heat; O. J. Popp, Archt., Arcade Bldg.

Mo., St. Louis—Kuhn & Kuhn Construction Co., 5808 Columbia St., erect \$10,000, 2-story, brick, 34x51-ft. tenement, 4545 Shenandoah St.; gravel roof, hot-air heat; owner builds.

Mo., St. Louis—A. Lindaur, 1831 Victor St., let contract to Wagner & Newman, 605 Clara St., for \$10,000, 2-story, 34x41-ft., brick tenement, 3919 Potomac St.; tar and gravel roof, steam heat; A. Schramm, Archt., Chemical Bldg.

N. C., Wilmington—Carolina Beach Co., Inc., E. D. Turner, Sec., let contract to W. A. Simon, 1110 S. Fourth St., for \$100,000, 160-room, 3-story hotel at Carolina Beach.\*

S. C., Florence—W. R. Barringer reported let contract to P. H. Kelly Construction Co., 1713 Sansom St., Philadelphia, Pa., for \$850,000, 12-story, 130-room hotel.\*

Tenn., Athens—G. F. Lockmiller let contract to Young & Stoner, Sweetwater, for \$150,000, 84x165-ft., 3-story and basement, 60 rooms with baths hotel; Manley, Young & Meyers, Archts., Knaffle Bldg., Knoxville.\*

Tex., Dallas—Majors & Watson erect \$16,000, 32-room, brick veneer, 8-apartment building, 3814 Ross St.; owner builds.

Tex., San Antonio—Mrs. R. Robinson, 605 North St., let contract to Charles Brient, Builders Exchange Bldg., for \$70,000, 2-story, frame apartment house, E. Park Ave.; private plans.

### Miscellaneous

Fla., Clermont—Clermont Hill & Lake Co. let contract to C. C. Hays, St. Petersburg, for \$100,000, 50-room addition to clubhouse and for 3-story, \$50,000 building, East Ave., for 60-car garage, stores, shops and offices, with apartments above.

Fla., Lake Worth—Earl J. Reed and T. J. Drake erect \$250,000, 1-story, 225x135 ft. Reed-Drake Market Building, 12th St. and Dixie Highway; 8 offices and public market; Ira J. Rouse, Archt. & Builder; also erecting \$100,000, 2-story, 50x135 ft. cafeteria and 25-hotel room building, 12th and J Sts.

Tex., Fort Worth—Southwestern Exposition & Fort Worth Stock Show, care Ed R. Henry, Sec.-Mgr., 821 Western St., let contract to Thomas S. Byrne, 410 Fort Worth Natl. Bank Bldg., for 198x235 ft., 1-story, frame and stucco Exhibit Building; Fort Worth Plumbing & Heating Co., 606 W. T. Waggoner Bldg., plumbing and heating; Miller Electric Co., 300 Calhoun St., electric work; Sanguinet, Staats & Hedrick, Archts., 1005 First National Bank Bldg.\*

### Schools

Ark., Osceola—Board of Trustees of Osceola Special School District No. 1, Charles E. Sullenger, Sec., let contract to Cliff Sinclair and Julian Harris of Joiner, for \$12,000, 1-story, brick veneer negro school; contain 5 rooms and auditorium.\*

Fla., Jacksonville—Church of Immaculate Conception let contract to W. T. Hadlow, Baldwin Bldg., for \$150,000, 3-story, brick and tile, reinforced concrete school building, N. W. cor. Duval and Newman Sts.

Fla., New Smyrna—Volusia County Board of Public Instruction, George W. Marks, Sec., let contract to Leo Alshelmer, both DeLand, at \$151,860, for 35-classroom, Junior-Senior High School; R. M. Cunningham, heating at \$11,860; W. J. Carpenter, Archt., DeLand.\*

Ga., Augusta—Richmond Academy building commission, J. G. Belding, Chmn., let contract to Palmer-Spivey Construction Co., 124 Eighth St., at \$406,850, for school building, Baker Ave.; Scroggs & Ewing, Archts., Lamar Bldg.\*

La., Lake Charles—Knapp & East, Contrs., Kaufman Bldg., remodel Baptist Orphanage building for J. Alfred Landry Memorial School for Boys; \$20,000.

Mo., Charleston—Charleston High School District Board of Trustees, J. H. Haw, Pres., let contract to George H. Gassman Construction Co., Box 234, Independence, at \$95,512, for 2-story and basement, 135x128-ft., semi-fireproof high school building; hollow tile, metal doors, vaults, ventilators, concrete floors and foundation, built-up roof; George Schultz Plumbing Co., heating and plumbing; Al-Bo Electric Co., 114 S. 12th St., St. Louis, electrical work; H. H. Hohen-schild, Archt., 600 Buder Bldg., St. Louis.\*

N. C., Bellwood—Cleveland County Board of Education, care J. C. Newton, let contract to J. T. Ramsey & Son, at \$25,285, for consolidated school building; Ideal Plumbing Co., plumbing; all Shelby; Dermott Heating Co., Roney & Watkins Sts., Durham, heating; Linthicum & Linthicum, Archts., 17 S. Wilmington St., Raleigh.\*

N. C., Greensboro—North Carolina College for Women, Dr. J. I. Foust, Pres., let contract to J. A. Jones Construction Co., Realty Bldg., Charlotte, at \$577,000, for erection of 116x169 ft. auditorium on Tate St. and 236x188 ft. education building on Teague Field; B. MacKenzie, heating on both buildings; W. P. McDonaldson, Greensboro, plumbing in auditorium; Crutchfield Plumbing Co., plumbing in education; Michael & Bivens Co., 120 N. Elm St., electrical equipment on education; Peoples' Electrical Co., 217 W. Fifth

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St., Winston-Salem, auditorium; Harry Barton, Archt., Jefferson Bldg.\*

N. C., Jonesville—Board of Education let contract to C. Y. Dobbins, Yadkinville, for \$25,000, brick school building; Northrup & O'Brien, Archts., Starbuck Bldg., Winston-Salem.\*

Okla., Cooperton—A. M. Thompson, Walters, Contr. for school building at \$29,654, let following sub-contracts: Heating, Oklahoma School Equipment Co., 18 W. Main St.; brick, Lumbermen's Supply Co., American Natl. Bank Bldg., and Reliance Brick Co., 123 N. Harvey St.; steel, J. B. Klein Iron & Foundry Co., 1006 W. Second St., all Oklahoma City; lumber, Home Lumber Co., Roosevelt.\*

Tenn., Memphis—Board of Education let contract to R. V. Ragsdale Co., at \$46,198, for 12-classroom addition to Grant School, Seventh and Auction Sts.; Southern Heating Co., 145 S. Third St., heating at \$7300; Fischer Heating Co., 367 Adams St., plumbing at \$4980; Hubert T. McGee, Archt., Madison Ave. Bldg.

Tex., Childress—Board of Education let contract to George Parr, Amarillo, at \$107,488, for 2-story, brick, 58x280-ft. with auditorium wing high school building; tile and Johns-Manville roof, concrete, maple and terrazzo floors, concrete foundation, hollow tile, plaster board, ventilators, steel sash and trim, wire glass; Hampton Metal & Plumbing Co., Vernon, heating and plumbing; Guy A. Carlander, Archt., Amarillo.\*

Tex., Harrisburg—Harrisburg Independent School District Board of Trustees let contract to James M. L. West, 3002 N. Main St., Houston, at \$67,000, for gymnasium and auditorium addition to Magnolia Park High School; concrete frame, fireproof, 104x62 ft., 2 stories, composition and concrete floors, reinforced concrete foundation, asphalt roof, hollow tile, interior tile, ventilators, steel sash and trim, wire glass; Warren-Shivers Co., heating and plumbing at \$8600; Jacob Brothers Electric Co., 1014 Prairie Ave., electric wiring at \$2256; John McLelland, Archt., 605-7 West Bldg., all Houston.\*

Tex., Wichita Falls—Board of Education, W. W. Brown, Sec., let contract to R. C. Cato, 1307 Lamar St., at \$19,817 for 2-story, brick and stone school building on N. Sixth St., Scotland Addition; J. C. Korloth Plumbing Co., Sherman, heating and plumbing at \$3184; Voelcker & Dixon, Archts., 312 Morgan Bldg.\*

Va., Lexington—Virginia Military Institute let contract to J. L. Crouse, American Bank Bldg., Greensboro, N. C., for \$200,000, 3-story, 240x100-ft. gymnasium building; concrete and wood floors, concrete foundation, slag roof, hollow tile, interior tile, metal doors, wire glass, stone trim; Carneal & Johnston, Archts., Virginia Rwy. & Power Bldg., Richmond.\*

Va., Richmond—Henrico County Board of Education let contract to J. C. Beagley & Co. for \$30,000, 1-story, 6-room and auditorium, brick Montrose Public School, Fairfield District; tin roof, rift pine floors, concrete foundation; Charles M. Robinson, Archt., 1002 Times-Dispatch Bldg.\*

### Stores

Ala., Birmingham—M. H. Crittenden, 1331 S. 20th St., let contract to D. D. Thomas & Son, 944 Martin Bldg., for \$200,000 6-story, 70x140 ft., reinforced concrete building, 1912-4-6 Third Ave. North, to be occupied by Oster Brothers Furniture Co., 2020 Third Ave.; pitch and gravel roof, concrete foundation, composition and hardwood floors, hollow tile,

metal doors, vaults, steel sash and trim, rolling partitions; Harry B. Wheelock, Archt., Steiner Bldg.\*

Ark., Belleville—Luther Clark, Martin Foster, Roy Blaylock and Jeff Davis let contracts for 4 brick business houses, to replace frame buildings burned.

Ark., Gurdon—George C. Wilson let contract to Ed. Taylor for store building.

Fla., Davenport—See Contracts Awarded—Hotels and Apartments.

Fla., Miami—Seyer-Hansen Construction Co., 1362 Northeast Second Ave., erect two 16-unit apartment houses, each unit to contain 2 rooms and bath; 2 stores on ground floor; also plans large warehouse.

Fla., Tampa—United Markets, N. Rosenblatt, Gen. Mgr., let contract to G. A. Miller Construction Co., Petteway Bldg., for \$300,000, 7-story store building, Nebraska Ave. and Temple Terrace Highway.

Fla., West Palm Beach—Dr. E. C. Dove erecting \$60,000 3-story, brick and tile, 50x70 ft. furniture store building; cement and wood floors; Arnold Construction Co., Contrs.

La., New Orleans—Pere Marquette Bldg.; W. Horace Williams Co., foundation contract; S. Scott Joy, Archt., Chicago; Wm. E. Spink, Asso. Archt. (See Contracts Awarded—Bank and Office).\*

La., Shreveport—S. G. Sample, Vice-Pres. Commercial Natl. Bank, let contract to W. H. Werner, Louisiana and Texas Sts., at \$12,000 for 2-story, 23x100 ft., brick and concrete store building; Rankin Sheet Metal Works, 1953 Laurel St., roofing and sheet metal work; Shreveport Long Leaf Lumber Co., Texas St., millwork; Mosher Steel & Machinery Co., 900 S. Austin St., Dallas, steel; Edward F. Nield, Archt., 1206 City Natl. Bank Bldg.\*

Mo., St. Louis—L. F. Carna, 4732 Louisiana St., erect \$10,000, 2-story, brick, 25x53-ft. store and dwelling, 4630 Louisiana St.; asphalt shingle roof, hot-water heat; Barth Building & Real Estate Co., 4222 Gravois St., Archts. and Builders.

Mo., St. Louis—West End Realty Co., 6511 Delmar Blvd., erect \$15,000, 2-story, 60x50-ft., brick stores, 3412-4-6 Union St.; tar and gravel roofs, steam heat; C. L. Thurston, Archt., Webster Groves, Mo.; owner builds.

Mo., St. Louis—C. H. McMillan, Mercantile Trust Co., 721 Locust St., let contract to Wm. A. Bopp, 237 W. Monroe St., for \$25,000 2-story, 50x150 ft. brick stores building, 1700 Washington Ave.; yellow pine floors, concrete foundation, composition roof, steam heat; L. B. Pendleton, Archt., 119 N. Seventh St.\*

Mo., St. Louis—Union News Co., 21st and Walnut Sts., let contract to Fidelity Construction Co., 2843 S. Jefferson St., for \$25,000 2-story, brick stores and dwelling, 16 to 24 S. 21st St.; composition roof, steam heat; Stanley Knott, Archt., 5043 Alaska St.\*

Tenn., Crossville—Judge J. R. Mitchell erecting steel frame, brick exterior walls' building, contain 3 store rooms and several office suites; Frank Davis, Contr., 144 Exeter Ave.; Manley, Young & Meyer, Archts., both Knoxville.

Tex., Dallas—J. A. Helskell, 1115 Hampton Rd., erect \$10,000, 5 brick stores and filling station, 1215-25 Hampton Road; owner builds.

Tex., Dallas—Miss Annabell Clopton, 1500 Commerce St., let contract to Mahaffey & Howard, 309 Gaston Bldg., at \$65,000 for 2-story, reinforced concrete, 6-store and 10-apartment building, Madison Ave. and Davis St.; Bertram C. Hill, Archt., 304 Liggett Bldg.\*

Va., Bluefield—J. T. Walthall and J. N. Morris started work on 2-story, 45x60-ft. building, Greener Ave. and Fairfax St.; brick, composition roof, concrete floors and foundation; store room and garage on first floor, apartments above.

W. Va., Huntington—King & Petterson, 1113 Fourth Ave., let contract to J. S. Sadler & Son for masonry and brick work, and to H. Persun for carpenter work on 2-story brick store and apartment building, 539 Sixth Ave.; front of brick, tile and marble, interior finish of marble and tile; owners will do tile and marble work; Meador & Handloser, Archts., 1139 Fourth Ave.

### Theaters

Ala., Birmingham—W. Gordon Burnett, Peachtree Rd., Atlanta, Ga., let contract to Charles M. Allen & Son, Inc., 408½ N. 19th St., for \$200,000 fireproof, steel frame, 75x140 ft. theater building, 1719-23 Second Ave. North; cement tile roof, concrete footings foundation, cement roof, hollow tile, interior tile, metal doors, ventilators, ornamental terra cotta, one-pipe steam heat; C. K. Howell, Archt., 700 E. Broad St., Richmond, Va.\*

Fla., Tampa—Consolidated Amusements, Inc., Dr. L. A. Bize, 819 Bayshore Blvd., let contract to George A. Miller Co., Petteway Bldg., for \$1,000,000 structural steel frame, reinforced concrete pan floor construction Tampa Theater and office building, Franklin St. between Polk and Zack Sts.; theater to seat 2000 people, office building 10 stories, brick and terra cotta facade, Spanish patio interior; John Ebersohn, Archt., 212 E. Superior St., Chicago, Ill.\*

La., Ferriday—Grant & Abney erecting \$30,000 theater building, to be complete about Jan. 1st.

### Warehouses

Fla., Orlando—Moe-Bridges Electrical Co. let contract to J. B. Southard, Box 1630, at \$49,000 for 2-story, hollow tile and steel, 75x135 ft. warehouse; built-up roof, reinforced concrete foundation, wood and concrete floors; Johnson Electric Co., 20 E. Pine St., electric work; Morgan Bros., plumbing; Otis Elevator Co., 11th Ave. and 26th St., New York, elevator; F. H. Trimble, Archt., 117 N. Main St.\*

Mo., St. Louis—Sylvester Lewis Realty Co., Euclid and Natural Bridge, erect \$20,000 48x110 ft., brick, 2-story warehouse, 4938-42 Natural Bridge; concrete roof, hot air heat; W. M. Schenier, Archt., 5100 Slevin St.; owner builds.

Tex., Houston—Channel Warehouse Extension, Inc., 201 Scanlan Bldg., let contract for erection of 4-story, 177x460 ft. warehouse; also 1-story, 130x460 ft. building; \$1,000,000; built-up smooth asphalt roofing, concrete floors and foundation, flat slag concrete and structural steel construction; contract awarded but not announced; major items to be purchased include: Structural steel, reinforcing, cement, steel sash, rolling steel doors, sprinkler, platform elevator, electric wiring, Telfer conveyors, slat portable conveyors, etc. Address James A. Schiller, Engr., fifth floor Court House.\*

Tex., Houston—Crane Co., care U. H. Groenlund, Branch Mgr., 2205 McKinney Ave., let contract to J. B. Townsend Construction Co., West Bldg., for 100x100-ft., \$173,675, 4-story warehouse and office building, Hutchins St. and McKinney Ave.; Alfred C. Finn, Archt., 501 Bankers Mortgage Bldg.\*

## MACHINERY, PROPOSALS AND SUPPLIES WANTED

**Boiler.**—Hackley Morrison Co. (Mchy. Dealer), 1708 Lewis St., Richmond, Va.—Wants one locomotive-type boiler on skids or rollers.

**Boilers, etc.**—Monteau Coal Co., Higbee, Mo.—Wants prices on boilers and flues for 200-ton daily capacity coal mine.

**Brick.**—Louis Mor, 4911 Emerson Ave., St. Louis, Mo.—Wants bids on brick for \$18,000 double flat.

**Brick.**—See Building Material.

**Brick.**—Harry E. Eldridge, Constr. Engr., care Agricultural & Mechanical College, Jonesboro, Ark.—Wants prices on 270,000 brick.

**Brick Work.**—Harry E. Eldridge, Constr. Engr., care Agricultural & Mechanical College, Jonesboro, Ark.—Wants sub-bids on brick work.

**Bridge.**—Wichita Falls. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—State of North Carolina will build 2 bridges. See Construction News—Roads, Streets, Paving.

**Bridge.**—Punta Gorda, Fla. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—Palatka, Fla. See Construction News—Bridges, Culverts, Viaducts.

**Bridge.**—State of Kentucky. See Construction News—Roads, Streets, Paving.

**Building Material.**—St. Augustine Building Co., St. Augustine, Fla.—Wants prices on building materials, except lumber.

**Building Materials.**—Wilson & Taylor, 40 Macon Ave., Asheville, N. C.—Wants following in car lots: No. 1 lath, drop-siding finish, dimension stock, dressed four sides, 2x4, 2x6, 2x8 and 2x10, kiln-dried boards and cement, one car of each.

**Building Contractor's Equipment.**—Emmett Nicholson, Davenport, Fla.—Wants prices, data and catalogs on building con-

tractor's equipment for dwellings, stores, hotel.

**Building Material.**—Deans & Grogan, Thibodaux, La.—Wants prices on brick, lime, cement and tile for postoffice building, Comanche, Tex.

**Building Materials.**—Majestic Homes Corp., Laura and Bay Sts., Jacksonville, Fla.—Wants building materials for subdivision development, including hollow tile, hardwood floors, interior tile, ventilators, concrete floors, ornamental terra cotta, steel sash and trim.

**Building Material.**—Emmett Nicholson, Davenport, Fla.—Wants prices on all material for dwellings, stores and hotel construction, including common red brick, lumber, millwork, roofing, electric light fixtures, home specialties, built-in features for homes, stucco reinforcement and stucco material and stucco coloring.

**Building Repairs.**—City of Baltimore,

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

**Md., V. Bernard Siems, Water Engr.**—Receives bids Nov. 12 for making general repairs to roofing monitors and appurtenant structures of Mt. Royal pumping station.

**Built-in Features.**—See Building Material.

**Cars.**—See Concrete Products Machinery and Equipment.

**Cars (Dump).**—W. M. Smith & Co. (Mchy. Dealer), First Ave., Birmingham, Ala.—Wants 20-yd. Western dump cars, steel underframe preferred.

**Cement.**—See Building Materials.

**Cement.**—See Building Material.

**Clubhouse Furnishings.**—Stetson Country Club, care Harry E. Prettyman, Inc., Daytona, Fla.—Wants prices until Dec. 1st for complete furnishings for \$50,000 two-story clubhouse.

**Concrete Products Machinery and Equipment.**—H. V. Bastin, Hollywood, Fla.—Wants prices on machinery to manufacture cement blocks, tile and brick; also equipment to handle material, including power shovel, cars, track, crusher, screens, elevator, bins, conveyor.

**Construction Equipment.**—Emmett Nicholson, Davenport, Fla.—Wants prices, data and catalogs on cost and labor-saving equipment for erecting dwellings, stores, hotel.

**Conveyor.**—See Concrete Products Machinery and Equipment.

**Conveyor.**—Melrose S. Avery, Inc., 14 N. W. Seventh St., Miami, Fla.—Wants conveyor for 2-story warehouse to carry to any part of building; to be about 100 ft. long.

**Cotton-Mill Machinery.**—Hackley Morrison Co. (Mchy. Dealer), Richmond, Va.—Wants one R. H. and one L. H. 8x3½ gauge, 152-spindle, American make H. and B. speeders.

**Dike.**—Atchafalaya and Lafourche Basin Levee Board, 213 New Orleans Bldg., New Orleans, La.—Receives bids Nov. 7 for work on Bayou Lafourche dike in Ascension Parish, approximate contents 30,000 cu. yds.; plans with Board of State Engrs., 213 New Orleans Court Bldg.

**Drag Line.**—Municipal Excavator Co., 200 E. Main St., Oklahoma City, Okla.—Wants drag line for sewer system.

**Drainage.**—R. E. Lee Wilson, Jr., Chrmn. Comms. of Sub-Drainage Dist. No. 1 of Carson Lake Drainage Dist. No. 8, Mississippi Co., Osceola, Ark.—Receives bids Nov. 20 for drainage and floor protection work, involving about 3,000,000 cu. yds., including 75 mi. outlet channels, enlarge existing channels, 41 mi. cleaning out an dredging existing channels and 27 mi. new lateral ditches; Morgan Engineering Co., Engr., Goodwyn Institute, Memphis, Tenn.

**Drainage.**—Comms. of Sub-District No. 3 of Grassy Lake and Tyronea Drainage Dist. No. 9, Osceola, Ark.—Receives bids Nov. 19 for drainage and flood-protection work, 12,000,000 cu. yds. excavation, including 80 mi. outlet channels, 23 mi. channel clearing, 90 mi. cleaning out and redigging existing canals and 20 mi. new lateral ditches; Morgan Engineering Co., Engr., Goodwyn Institute, Memphis, Tenn.

**Dredges.**—San Carlos Syndicate, Inc., Fort Myers, Fla.—Wants orange peel and suction dredges for irrigating 800 acres land.

**Dredging, etc.**—St. Lucie Inlet Dist. Comms., C. Van Anglen, Sec., Stuart, Fla.—Receives bids Dec. 8 for dredging and jetty construction at St. Lucie Inlet; J. M. Braxton Chief Engr., 319 St. James Bldg., Jacksonville, Fla.

**Dredging Equipment.**—Majestic Homes Corp., Laura and Bay Sts., Jacksonville, Fla.—Wants dredging equipment for subdivision development.

**Electric Light Fixtures.**—See Building Material.

**Electrical Supplies, etc.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Nov. 16 to furnish storage batteries and switchboard supplies; delivery 100 Harrison St., San Francisco, Cal. Sch. 249.

**Electrical Work.**—See Millwork, etc.

**Elevator.**—See Concrete Products Machinery and Equipment.

**Elevator.**—Hackley Morrison Co. (Mchy. Dealer), Richmond, Va.—Wants 2 to 30 ft. elevator with 16-in. buckets.

**Engine.**—See Generator Set.

**Escalator.**—Shenandoah Caverns Corp., H. B. Chapman, Pres., Shenandoah Caverns, Va.—Wants data and prices for installation of escalator in caverns for stairway of 75 steps that have 8-inch risers; interested in good second-hand outfit.

**Finger Cots.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives

bids Nov. 12 for 1000 doz. finger cots, medium size.

**Furnishings, etc.**—William Jewell College, James E. Davis, Bus. Mgr., Liberty, Mo.—Wants prices and data on furnishings and equipment for chapel about Jan. 1st and for dormitory about March 1st.

**Furniture (Church).**—Rev. R. C. Miller, Pastor First Baptist Church, Joplin, Mo.—Place order Nov. 18 for church furniture.

**Generator and Turbine.**—Miller Manufacturing Co., Inc., Stockton St., Richmond, Va.—Wants generator and turbine, direct connected, 500 kw, 3 phase, 60 cycle, 440 volts; state condition, price and description.

**Generator Set.**—Wood & Lane Co., St. Louis, Mo.—Wants one 300 kw. motor generator set, consisting of 300 kw. 275 volt compound wound generator, direct connected to and including 2300 volt, 3 phase, 60 cycle synchronous motor, complete with necessary switchboard; state age, make detailed description and condition, price, etc.; immediate delivery.

**Generator Set.**—Box 59, South Richmond, Va.—Wants generator and engine, 200 kw. direct connected, 440 volts, 3 phase, 60 cycle; state price and description.

**Gravel.**—State Highway Engr., State Office Bldg., Austin, Tex.—Receives bids Nov. 7 to furnish approximately 20,000 cubic yards standard road gravel, delivered in Lee county, for use on Highway No. 20.

**Gravel.**—Louisiana Highway Comn., Baton Rouge, La.—Receives bids Dec. 1 to furnish gravel for surfacing 9.60 mi. Jackson Parish and 3.40 mi. LaSalle Parish; plans on file; W. B. Robert, State Highway Engr.

**Hardware (Coffin and Casket).**—Monroe Manufacturing Co., Inc., Monroe, La.—Wants prices on coffin and casket hardware; correspond with manufacturers.

**Heating System.**—E. C. Hearon, Box 587, Hattiesburg, Miss.—Wants bids on hot-air gravity heating system.

**Ice Plant.**—The L. E. Blanchard Co., L. E. Blanchard, Pres., Harlem, Ga.—Wants 5 to 7 ton raw water ice plant, complete, electrically driven, used equipment; must be in Georgia or nearby point on account of freight.

**Ice Tank.**—Southwestern Equipment Co. (Mchy. Dealer), El Reno, Okla.—Wants second-hand ice tank, in good condition, to hold fifty 300-lb. cans; prices f. o. b. point of shipment.

**Iron (Miscellaneous).**—Deans & Grogan, Thibodaux, La.—Wants prices on miscellaneous iron for postoffice, Comanche, Tex.

**Laboratory Supplies.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Nov. 12 for laboratory supplies; delivery Aspinwall, Pa.

**Lath.**—See Building Materials.

**Lighting Fixtures.**—St. Augustine Building Co., Box 1153, St. Augustine, Fla.—Wants prices on ornamental lighting fixtures for dance hall on recreation pier.

**Lime.**—See Building Material.

**Lockers.**—Palmetto Golf & Country Club, Palmetto, Fla.—Receives bids Nov. 15 on 200 steel lockers.

**Lumber.**—See Building Materials.

**Lumber.**—Panama Canal, A. L. Flint, General Purchasing Officer, Washington, D. C.—Receives bids Nov. 16 to furnish redwood, poplar, cypress, white oak and Southern yellow pine lumber; creosoted yellow pine or Douglas fir piles. Brank forms and information (Circular 1707) on application to offices of Panama Canal, Asst. Purchasing Agents at Fort Mason, San Francisco, Cal.

**Lumber.**—See Building Material.

**Map Rollers and Hangers.**—U. S. Dept. of the Interior, John H. Edwards, Asst. Sec., Washington, D. C.—Receives bids Nov. 10 to furnish 10,000 sets of rollers and hangers for mounting General Land Office maps.

**Mechanical Equipment, etc.**—Treasury Dept., Supvg. Architect's Office, Washington, D. C.—Receives bids Nov. 30 for mechanical equipment for building, etc., at Federal Industrial Institution for Women, for Dept. of Justice at Alderson, W. Va.

**Millwork, etc.**—Wier B. Goodwin, care of Standard Oil Co. (N. J.), Columbia, S. C.—Wants prices on mill work, plumbing and electrical work on \$10,000 gasoline service station.

**Millwork.**—See Building Material.

**Motors.**—W. M. Smith & Co. (Mchy. Dealer), First Ave., Birmingham, Ala.—Wants one 15 or 20 h. p. motor, 3 phase, 220 volt, 60 cycle, A. C. motor, 1200 to 1800 R.P.M.; one 10 or 15 h. p. motor, 220 volt, 1200 to 1800 R.P.M., and one 15 h. p. 3

phase, 550 volt, 900 or 1200 R.P.M.-A.C. motor.

**Motor.**—See Generator Set.

**Numbering Machines, etc.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Nov. 13 to furnish 50 machines, numbering, and 15 paper punches; delivery 1100 S. Broad St., Philadelphia, Pa. Sch. 242.

**Paving.**—Miami, Fla. See Construction News—Roads, Streets, Paving.

**Pipe.**—Hackley Morrison Co. (Mchy. Dealer), 1708 Lewis St., Richmond, Va.—Wants 1800 ft. of 4-in. black or galvanized pipe.

**Plumbing.**—See Millwork, etc.

**Plumbing.**—Louis Mor, 4911 Emerson Ave., St. Louis, Mo.—Wants bids on plumbing for \$18,000 double flat.

**Plumbing Supplies, etc.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Nov. 9 for 100 combination compression lavatory supply fixtures, etc.; also on Nov. 7 for 6 mop trucks, 2-tank, complete with wringers; prices f. o. b. point of shipment.

**Pile Driving.**—St. Augustine Building Co., Box 1153, St. Augustine, Fla.—Receives bids Nov. 15 for pile driving in the ocean for recreation pier.

**Portland Cement.**—Alabama State Docks Comn., State Office Bldg., Mobile, Ala.—Receives bids Dec. 1 to furnish and deliver 54,000 bbls. Portland cement; specifications with Purchasing Agent.

**Pump.**—Municipal Excavator Co., 200 E. Main St., Oklahoma City, Okla.—Wants large capacity centrifugal pump for sewer system.

**Pumps.**—See Water Works.

**Pumps (Gasoline).**—Moniteau Coal Co., Higbee, Mo.—Wants prices on gasoline pumps.

**Punch and Shear.**—J. C. Steele & Sons, Statesville, N. C.—Wants good second-hand power punch and shear to punch about 2-in. through 5; 6-in., shear ¾x4, also angles, 4x4x½.

**Relay Rails.**—W. M. Smith & Co. (Mchy. Dealer), First Ave., Birmingham, Ala.—Wants any quantity of 70 to 85 lb. relay rails.

**Reservoir.**—See Water Works.

**Road.**—State of Texas will improve 2 roads. See Construction News—Roads, Streets, Paving.

**Road.**—Morgantown, W. Va., will build 2 roads. See Construction News—Roads, Streets, Paving.

**Road.**—Falfurrias, Tex., will build 2 roads. See Construction News—Roads, Streets, Paving.

**Road.**—Huntsville, Tex. See Construction News—Roads, Streets, Paving.

**Road.**—Lagrange, Tex. See Construction News—Roads, Streets, Paving.

**Road.**—State of Louisiana will build 2 roads. See Construction News—Roads, Streets, Paving.

**Road.**—State of North Carolina will build 12 roads. See Construction News—Roads, Streets, Paving.

**Road.**—State of Kentucky will build 2 roads. See Construction News—Roads, Streets, Paving.

**Road.**—Marlin, Tex. See Construction News, Roads, Street Paving.

**Roofing (Composition).**—Harry E. Eldridge, Constr. Engr., care Agricultural & Mechanical College, Jonesboro, Ark.—Wants prices on composition roofing.

**Roofing, etc.**—Board of Awards, F. A. Dolfield, City Register, Baltimore, Md.—Receives bids Nov. 12 for general repairs to roofing, etc., of Mt. Royal pumping station of the Bureau of Water Supply; V. Bernard Siems, Water Engr.

**Salt.**—Electric Ice Co., Inc., 414 Carondelet St., New Orleans, La.—Wants prices on salt.

**School Furnishings, Equipment, etc.**—Board of Awards, F. A. Dolfield, Register, City Hall, Baltimore, Md.—Receives bids Nov. 12 to furnish gymnasium equipment, stage furniture and curtains, machinery, tools, domestic science equipment, supplies, etc., for Dept. of Education; John H. Roche, Sec. Board of School Comms.

**Screens.**—See Concrete Products Machinery and Equipment.

**Screen.**—Hackley Morrison Co. (Mchy. Dealer), Richmond, Va.—Wants screen for stone, size about 40 in. by 16 ft.; state make and send cut if possible.

**Shovel (Power).**—See Concrete Products Machinery and Equipment.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.



**Steel (Reinforcing).**—Deans & Grogan, Thibodaux, La.—Wants prices on reinforcing steel for postoffice, Comanche, Tex.

**Steel Sash.**—St. Augustine Building Co., Box 1153, St. Augustine, Fla.—Wants prices on steel sash for buildings on recreation pier.

**Steel Tank and Tower.**—D. B. Straley, Crown Point, Ind.—Wants steel tank from 100,000 to 300,000 gal. capacity, mounted on approximately 100 ft. steel tower.

**Sterilizers.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Nov. 13 for 3 electric instrument sterilizers; The V. Mueller & Co.'s catalog No. C-416 or equal; also 17 sterilizers. The Wil-mot Costle Co.'s catalog No. 416-S or equal.

**Stone Screens.**—Municipal Excavator Co., 200 E. Main St., Oklahoma City, Okla.—Wants stone screens for sewer system work.

**Steel Trusses.**—Harry E. Eldridge, Constr. Engr., care Agricultural & Mechanical College, Jonesboro, Ark.—Wants prices on steel trusses for armory.

**Street.**—Huntington, W. Va.—See Construction News—Roads, Streets, Paving.

**Street.**—Canton, Ga. See Construction News—Roads, Streets, Paving.

**Street.**—Bartow, Fla. See Construction News—Roads, Street, Paving.

**Street.**—Gulfport, Miss. See Construction News—Roads, Streets, Paving.

**Surgical Instruments.**—U. S. Veterans' Bureau, Supply Division, Washington, D. C.—Receives bids Nov. 9 to furnish surgical instruments; prices f. o. b. point of shipment.

**Tank and Tower.**—See Water Works.

**Tile.**—See Building Material.

**Track.**—See Concrete Products Machinery and Equipment.

**Turbine.**—See Generator and Turbine.

**Ventilators.**—See Building Materials.

**Washing Plant.**—Municipal Excavator Co., 200 E. Main St., Oklahoma City, Okla.—Wants washing plant for gravel for sewer system.

**Water Coolers.**—Marine Corps, Quartermaster's Dept., Washington, D. C.—Receives bids Nov. 16 to furnish 100 water coolers, delivery foot of Snyder St., Philadelphia, Pa. Sch. 248.

**Water Works.**—Town of Welsh, La., John W. Armstrong, Mayor—Receives bids Nov. 17 for complete water-works system, including one 50,000-gal. Underwriters' hemispherical bottom steel tank on 100-ft. tower; one 100,000-gal. concrete reservoir and concrete roof for same, 39 fire hydrants, 52 gate valves, valve boxes, 9 tons special castings for water mains, 5½ miles of water mains, two 500 g. p. m. Underwriters' fire pumps with 60 h. p. motors, 300 g. p. m. service pump with motor; will also let contract for deep well to furnish not less than 1000 gal. water per minute, equipped with deep-well centrifugal pump direct connected to vertical motor.

**Windows (Church).**—Rev. R. C. Miller, Pastor First Baptist Church, Joplin, Mo.—Place order Nov. 20 for church windows.

**Wiring.**—Louis Mor, 4911 Emerson Ave., St. Louis, Mo.—Wants bids on wiring for \$18,000 double flat.

## Trade Literature

### Half a Century of Link-Belt Chains.

Commemorating its fifty years of existence, the Link-Belt Company of Chicago, Indianapolis and Philadelphia, one of the earliest advertisers in the MANUFACTURERS RECORD, has published an artistic, illustrated book, the cover of which is inscribed "Link-Belt: 1875-1925." Its contents tell a wonderful story of invention and development, which began with the patent of William Dana Ewart, dated September 1, 1874. Mr. Ewart, who was a young dealer in agricultural implements, was building a self-binding harvester and thus realized its need for a detachable chain drive that could be repaired in the field, and he worked out that idea, so that farmers could easily replace links when necessary without being obliged to lose time by going to a blacksmith shop. Mr. Ewart, who was from Belle Plaine, Iowa, interested John C. Coonley of Chicago, president of the Chicago Malleable Iron Co., in his invention, and the result was that in

1875 the Ewart Manufacturing Company was formed to make detachable link chains and next year they were exhibited at the Centennial Exposition in Philadelphia. New uses were rapidly found for them and in 1880 the Link-Belt Machinery Company was incorporated for the production of elevating and conveying machinery using the chains, and its plant was built in Chicago. The Link-Belt Engineering Company, with plant in Philadelphia, was formed in 1888, and all three plants grew, until in 1906 they were consolidated and Charles Piez was elected president; he is now chairman of the board and Alfred Kauffmann is president. The company owns and operates ten large manufacturing plants with seven shops and warehouses and twenty-seven branch offices. The book is a fine production and will be widely appreciated.

### Directory of Commodity Specifications.

The Department of Commerce, Bureau of Standards, George K. Burgess, director, Washington, D. C., has prepared a second supply of copies of the National Directory of Commodity Specifications, dated August 23, 1925, work upon which has been in progress at the bureau for the last two years. The first supply was not on the market three weeks before it was exhausted, but the second is now about ready for distribution through the Superintendent of Documents, Government Printing Office, Washington, at \$1.25 per copy. Director Burgess says that numerous organizations vitally interested in specifications have co-operated thoroughly in the production of this publication. Correspondence was conducted with more than 500 public purchasers and 500 technical societies and trade associations in compiling material for the book, which gives in convenient form information regarding the best known specifications for more than 6000 commodities.

### DeLaval Centrifugal Pump Book.

An up-to-date discussion of the design and the applications of centrifugal pumps is presented in a copiously illustrated book of seventy-two pages published by the DeLaval Steam Turbine Company of Trenton, N. J., which manufactures centrifugal pumps of single stage and multi-stage styles, and which introduced in 1901 the high efficiency, high head, high speed centrifugal pump in practically its present form as most generally known, with two-part casing split in the plane of the shaft axis. These pumps are used for power plant, water-works, drainage, hydraulic pressure and other service. Parts are made to limit gauges so that renewals can be made by customers.

### About the South and the Nation.

"The Valve World" for October, published by the Crane Company, 836 South Michigan Ave., Chicago, contains an excellent article by J. H. McCann entitled "Contribution of the South to Nation Building." In this work the author deals with the South before the Civil War as well as after it, covering the work of reconstruction and the progress which has continued and is continuing in steadily increasing force and worth. Mr. McCann notes indebtedness to the MANUFACTURERS RECORD as a valuable source of information in preparing his article, which is full of interest. Otherwise the magazine is also entertaining as well as instructive. A large inset reproduces photographic pictures of groups of the Crane branch houses in the South.

### Two New Hardinge Bulletins.

The Hardinge Rotor Spray for gas scrubbing, air conditioning, absorption, concentration, mixing, aeration, heating and cooling is described and illustrated fully in Bulletin No. 29 of the Hardinge Company of York, Pa. Bulletin No. 30 of the same company is devoted to a presentation of the merits of the Hardinge Super-Thickener and Clarifier for use in cyanide plants, sewage-disposal plants, paper mills, cement plants, nitrate works, caustic soda factories, coal mines, etc.

### International Cement Bulletin.

Bulletin No. 4 of the International Cement Corporation, New York, is a very interesting publication. The first article tells about how the entire strength of the International system is mobilized to assure prompt service to customers; this includes a map showing the strategic location of plants for distributing. The next article relates to the company's new method of shipping cement in bulk. A third contribution gives information concerning the manufacture of a cement of "super-standard quality" from oyster shells. A small folder is about concrete-built homes.

### Mead-Morrison "55" Tractor Book.

Catalogue No. 26 of the Mead-Morrison Mfg. Co., Boston, Mass., gives full particulars about their "55" Tractor, which has crawler tracks and is operated with gasoline power. As the machine has control like that of an automobile, anyone who can drive a motor car can drive it. The gas throttle and the gear shift are similar, the clutch and the transmission brake are operated by the two usual foot pedals, and steering is by means of an automobile type wheel. Thus, there is practically always an experienced driver at hand. There are many pictures in the book, some of them showing the tractor doing different kinds of work, including the removal from roads of heavy snowdrifts.

Memoirs of a Southern Woman; Within the Lines. By Mary Polk Branch. Chicago: The Joseph G. Branch Publishing Co. Boards. Pp. 107.

This book is a personal narrative with all of the charm that simplicity and naturalness lend to such a tale. The author makes no effort to attain literary superiority, but proceeds with her story in a straightforward, agreeable style which carries conviction of truth in every line. Her work will appeal to everyone who loves the South and its past and to those who would acquaint themselves with the faithfulness, courage and unflinching spirit which distinguished the conduct of the Southern people during the Civil War. The personal experiences which Mrs. Branch relates are exceedingly illuminating as to the general course of things during the conflict of 1861-1865, for others like them were met with by other women of the Confederacy wherever the soldiers fought. Mrs. Branch, who before her marriage to Joseph Branch was Mary Jones Polk, came of the same family as did President James K. Polk, and the genealogical data which follows her war stories sheds much light upon the family history of many prominent people of her section. This part of the book indicates why John Paul Jones, the celebrated naval commander of Revolutionary days, changed his name from simply John Paul to John Paul Jones. The book is full of facts and it will be welcome to everyone interested in the brilliant past of the South and of the states adjacent to it.

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Portsmouth (Va.) and Its Advantages.

The impressive advantages of Portsmouth, Va., as an industrial center are comprehensively set forth in a fine illustrated pamphlet containing the reports of the different city officials and issued by the Portsmouth Chamber of Commerce, from which organization copies of the pamphlet may be obtained by everyone interested on request. A formal announcement which appears elsewhere in this issue features the outstanding characteristics of Portsmouth as a seat of industry and commercial enterprises, and particulars are given in full in the publication that is being distributed. Portsmouth is situated on the Elizabeth River immediately opposite Norfolk and has fine railroad and steamship facilities. Large ocean steamers come right up to the wharves, the waters of the harbor being broad and deep.

### Chicago Pneumatic to Build Benz Engines.

The Chicago Pneumatic Tool Company, 6 East 44th street, New York, has effected arrangements with Motoren-Werke of Mannheim, Germany, and has acquired exclusive rights to manufacture and sell the Benz Solid Injection Diesel engines in the United States and Canada. The Benz engine is one of the best known internal combustion engines. It is of the vertical, multiple cylinder type built on the four-stroke principle. Many advantages are claimed for it, among them being very simple and clear design which eliminates the use of a high-pressure compressor, injection cylinder with high-pressure pipe line and injection valve. It will operate on all kinds of petroleum and its derivatives. Fuel consumption is said to be very economical.

### Ruggles-Coles Dryers Installations.

Recent installations of the Ruggles-Coles Dryers were for various customers as follows: Michigan Silica Co., Rockwood, Mich.; Golding-Keene Co., Keene, N. H.; Oxford Mining & Milling Co., W. Paris, Mo.; Chas. B. Chrystal Co., Jersey City, N. J.; Philadelphia & Reading Coal & Iron Co., Pottsville, Pa.; American Briquet Co., Lykens, Pa.; Carborundum Company, Niagara Falls, N. Y.; Cudahy Packing Co., Chicago, Ill.; Cochrane Corporation, Norristown, Pa.; American Radiator Co., Black Rock, N. Y., and Union Miniere du Hout Katanga, Belgian Congo, Africa. The manufacturer of these dryers is the Ruggles-Coles Engineering Co., 120 Broadway, New York.

### Florida Land Sales Corporation.

C. Gibson Ford, formerly of Baltimore, Md., who has been successful as a real estate broker in Florida, recently formed the Florida Land Sales Corporation, of which he is president, with offices in the Seybold Building, Miami, Fla. George J. Baya, attorney, also of that city, is vice-president, and H. M. Wharton Ward, formerly of Baltimore, is secretary and treasurer. The corporation will conduct a general brokerage business, handling acreage, subdivision developments, purchase, sale and rental of houses, hotels, apartments, etc. The Miami Bank & Trust Co., which acted as trustee for clients of Mr. Ford previous to his new organization, will continue to act in the same capacity in connection with it.

### Newport Rolling Mill Represented.

Waldo Mills Pipkin, with office in the Coleman E. Adler Building, 722 Canal street, New Orleans, La., was appointed November 1 to represent the Newport Rolling Mill Co. of Newport, Ky., in New Orleans and certain other Louisiana sales territory.

### Branch at Jacksonville, Fla.

The National Cast Iron Pipe Company of Birmingham, Ala., in choosing Jacksonville for the location of a branch office was moved by the volume of business already secured in Florida and the prospects for future business in that and adjacent states. The territory served by this branch includes Florida east of the Apalachicola River, Georgia, South Carolina and North Carolina. Previously it was served from Birmingham.

### Sale of Equipment and Machine Tools.

Elsewhere in this issue announcement is made of the forthcoming sale at Indianapolis, Ind., on November 18, 19 and 20 of the machine tools and equipment of the Midwest Engine Company, which will take place on the premises there. The auctioneers, Samuel T. Freeman & Co. of Philadelphia and Boston, say that they have never been able to offer a more desirable collection of machine tools in better condition. They will supply catalogues on request. Further particulars, including a list of the machinery and other equipment, will be found in the advertisement.

### Navy Surplus and Material to be Sold.

At the Philadelphia Navy Yard on November 17 there will take place a large auction sale of navy surplus and surveyed material, according to an advertisement which appears elsewhere in this issue. It will include more than 2,000,000 pounds of ferrous metals, nearly 200,000 pounds of non-ferrous metals, besides battery lead, lead scrap, silicon bronze, wire rope, 170 coffee urns of large capacity, over 1500 chests and ditty boxes, buildings, small boats, life rafts, etc., besides tools, hardware, boat and ship fittings, etc. Further particulars will be found in the announcement.

### York Oil & Chemical Co.

The York Oil & Chemical Co., York, Pa., has just completed its plant on the Grantley property of the York Manufacturing Co., and this, it is stated, is the first company incorporated anywhere to specialize in the manufacture of oils for the lubrication of ammonia and carbon dioxide compressors. The building is one story high, of steel and brick, and is 126 feet 8 inches long by 76 feet 8 inches wide, with a loading platform 17 feet wide for the whole length of the building. The interior is divided into office space, oil laboratories, boiler rooms and wash rooms, with large floor area devoted to the manufacture of oils for lubricating refrigerating machinery. It contains the most modern oil-blending, purifying and filling apparatus—including 1000 feet of pipe lines—that is obtainable. It is now on a production basis, with a capacity of 2500 gallons of refined oil per day. There are five steel

storage tanks for stock oils, their total capacity being 12,500 gallons. The company is a subsidiary of the York Manufacturing Company, which will market its products. The capital is \$100,000 and the officers are Joseph L. Rosenmiller, president; Charles H. Ehrenfeld, vice-president; Thomas Shipley, treasurer, and Earle W. Gardner, secretary.

### Florida Sales Office Opened.

The Pittsburgh-Des Moines Steel Company of Pittsburgh, Pa., has opened a new office in the Masonic Building at South Jacksonville, Fla., to handle sales in that state. John E. Jackson, recently of the company's office at Richmond, has charge of the branch.

### Back on the Job in Two Hours.

Right in the middle of an important unloading job at a manufacturing plant a clamshell bucket sustained a broken cast-steel ear. This tied up the unloading crane and embarrassed the plant considerably, because it held up the supply of material and because demurrage on freight cars was threatened. But the plant was equipped with oxy-acetylene welding apparatus, so several days' delay were avoided. The casting was about ¾ inch thick with a rib through the center, and after careful cleaning the break was welded. The total time required, including preparation and welding, was about 1½ hours. Within two hours after the break occurred the crane was back at work.

### Foos-Diesel Engines at Nashville, Ga.

The city of Nashville, Ga., is now installing two Diesel engines in its municipal light and power plant. They were built by the Foos Gas Engine Company of Springfield, Ohio, and when ready for operation will replace steam-plant equipment that has been in use for years. The engine ratings are 50 to 100 B. H. P.; each direct connected to an alternating current generator with belted exciter. The Foos Diesels operate on the well-known solid injection principle requiring no air compressor for fuel injection. Crude fuel oil is injected into the cylinders by the direct action of individual fuel injector pumps that completely atomize the charge. One feature that is of particular interest is the use of dual exhaust and air inlet valves. This, it is claimed, is the only full-Diesel engine of its size employing twin valves.

### New Line of Jenkins Valves.

A line of medium-pressure bronze globe and angle valves for 225 pounds working steam pressure is announced by Jenkins Bros., 80 White street, New York. They have been designed to meet a need for a valve with the renewable disc feature which will satisfactorily sustain higher pressures than are recommended for standard-pattern valves. An important feature of them is the bonnet and union, made in one piece to screw on to the outside of the body threads. This construction gives added strength to the body end, the bonnet hexagons being made especially large, and allow easy removal of the bonnet without distortion. The "ball joint," formed when the bonnet and body are screwed together, is a new feature designed by the firm which makes a very strong, though easily removable, joint. The valves are regularly fitted with the Jenkins Special No. 800 composition disc for high-pressure work. Both types are made with screwed or flanged ends in sizes of ¼ inch to 3 inches.



### Attractions of Walton County, Florida.

By G. A. LONDON, Secretary, Chamber of Commerce.

Since man's greatest possession is health and America's greatest industry is agriculture and farming, De Funiak Springs and Walton county hold a high position in Florida's great wave of prosperity. De Funiak Springs is the county-seat and is located on the Florida Mid-West Highway, the main line of the Louisville & Nashville Railroad, 125 miles west of Tallahassee, 81 miles east of Pensacola, 28 miles north of the Gulf of Mexico and 22 miles south of the Alabama state line. It has the second oldest Chautauqua in America, Palmer College, a fine grade-school system, an accredited high school and a public library, with five churches.

Walton county has many streams and lakes, with fine natural drainage. The average temperature for the past 25 years was 80 degrees and the average rainfall per annum 56 inches. The soil is sandy loam with a clay sub-base, and Satsuma oranges, blueberries, grapes, sand pears, peaches, figs, pecans, radishes, lettuce, cabbage, squash, watermelons, cantaloupes and white potatoes thrive. The staple crops are cotton, corn, sugar cane, peanuts, oats, hay and sweet potatoes. Deer, wild turkey, quail, squirrels, ducks and many other species of game abound, and also fish.

De Funiak Springs offers fine railroad service, good roads, two banks, a country club with golf course, many fine stores, moving-picture house and paved streets. It will spend \$1,150,000 this year in additional highway construction, paving and the construction of a new courthouse and city hall.

### \$650,000 Apartment Building for St. Louis.

St. Louis, Mo.—The Saum Architects of this city have prepared plans for an apartment building which they will erect here at a cost of \$600,000 for the structure and \$50,000 for furnishings and equipment. It will be 170 by 105 feet, nine stories, of reinforced concrete construction, concrete foundation and linoleum and tile floors. Vacuum heating plant, refrigerating plant, oil burner, electric stoves and other modern equipment will be installed. There will be a passenger elevator, freight elevator and two dumbwaiters. Construction will be handled by the Saum organization.

### \$300,000 Store and Office Building.

St. Louis, Mo.—Arrangements have been made for the erection of a store and office building at 3117-19 South Grand boulevard, in this city, to cost \$300,000, according to an announcement by the Joseph F. Dickman Real Estate Co. The building will be of modern fireproof construction, the ground floor having been leased to the F. W. Woolworth Co. for store purposes. Upper floors will be devoted to offices and suites for doctors.

### Four New Apartments at Tampa.

Tampa, Fla.—Four apartment houses, each to contain eight five-room suites, are planned for erection here by the Gillett-Fowler interests, with which Mrs. M. C. Fowler of Tampa is identified. The structures will be located in Temple Terrace Estates and will be two stories. Construction contract has been awarded to the Glagler-Watson Construction Co. of this city.

### New Directors in St. Louis Southwestern.

L. F. Loree, Paul Rosenthal and E. R. Harriman were elected directors of the St. Louis Southwestern Railway last Friday. Mr. Loree is chairman of the board of the Kansas City Southern Railroad, and the election of him and the other two new directors is the result of the Kansas City

Southern's purchase of the St. Louis Southwestern shares until recently held by the Rock Island system. Charles Hayden, chairman of the Rock Island, remains as a director, but the other three directors which represented that system retire from the board, viz., J. E. Gorman, M. L. Bell and N. L. Amster. There were no changes made in the heads of the St. Louis Southwestern Railway Co.

### Build \$500,000 Hospital at Fort Worth.

Fort Worth, Texas—Construction of a \$500,000 hospital building here will be undertaken at once by St. Joseph's Infirmary, the building to have a capacity of more than 200 beds. It will be six or eight stories, of fireproof construction, with a frontage of approximately 200 feet, and will be connected with the existing structure by a wing. The top floor will be devoted to operating rooms and the remaining floors to wards. Sister M. George is Mother Superior of the infirmary.

### To Build 10-Story, \$400,000 Hotel.

Gainesville, Fla.—Having purchased the site about two weeks ago, F. S. Hodson of the Florida Land Buyers plans to erect a 10-story bachelor hotel on the Ogilvie property, West University avenue, at a cost of approximately \$400,000. The building will contain an arcade with storerooms on the ground floor, and a roof garden on the top floor, which may also be used for dancing, and for a gymnasium for the men occupying the building. A bond issue will probably be floated for erecting the structure.

### 150-Mile Pipe Line to Cost \$2,250,000.

Eldorado, Ark.—A contract has been awarded by the Crusader Oil Pipe Line Co., with offices in this city, to J. J. Connor & Son, Kansas City, Mo., for the construction of a 150-mile, 10-inch pipe line from the Eldorado and Smackover oil fields to the Mississippi River. Construction will begin at once and is expected to be completed about February 1, the line to cost approximately \$2,250,000. From the Mississippi River terminus of the line oil will be handled up and down the river in barges.

### Southern Railway Appointments.

The Southern Railway Company has announced appointments in its passenger department recently made as follows: C. C. Fulp, district passenger agent at Baltimore, Md., vice L. H. Burgess, resigned; V. B. Shiel, traveling passenger agent at Washington, D. C., vice Mr. Fulp; W. R. Beam, traveling passenger agent at Richmond, Va., vice Mr. Shiel; C. H. Laird, traveling passenger agent at Detroit, Mich.; W. H. Callahan, traveling passenger agent at Cleveland, Ohio; J. H. Ballance, city passenger agent at Cincinnati, Ohio, vice W. H. Callahan.

### \$200,000 Addition for Chronicle Mills.

Belmont, N. C.—According to an announcement by A. C. Lineberger, president of the Chronicle Mills here, the plant of the company will be enlarged by an additional building and machinery to cost approximately \$200,000. The proposed structure will be 100 by 80 feet, two stories, while equipment to be added will include 5000 spindles, 31 additional cards and 24 combers. The plant is at present equipped with 10,216 ring spindles and 4576 twister spindles for the production of cotton yarns, 36s to 45s, single and ply; skeins, cones and tubes. Upon the completion of the new addition it is said that the production will be largely changed from carded to combed yarns and will consist principally of 24s to 30s.

## Cast Iron Pipe Resists Earthquake



*"By 10 o'clock on the morning of the quake all mains were repaired or by-passed, \* \* \*."*

—ENGINEERING NEWS-RECORD, July 9, 1925.

**T**HE recent disastrous earthquake in Santa Barbara resulted in property damage of more than ten million dollars. However, they were spared the horrors of a serious conflagration following the quake. The cast iron water mains were practically unharmed and small fires were extinguished before they could spread. Cast iron pipe played its part in preventing more serious losses.

The remarkable resistance of this material to strains set up by the shifting earth is shown by the fact that there were only two breaks in the one hundred twenty-four miles of cast iron pipe in use in that City. The ease with which bell and spigot pipe can be handled resulted in repairs in a very few hours.

## United States Cast Iron Pipe and Foundry Co.

General Office: Burlington, New Jersey .

### SALES OFFICES:

Philadelphia: 1421 Chestnut St.  
New York: 71 Broadway.  
Pittsburgh: Henry W. Oliver Bldg.  
Dallas, Texas: Magnolia Bldg.

Chicago: 122 So. Michigan Blvd.  
Cleveland: 1150 E. 26th St., N. E.  
Birmingham: 1711 American Trust Bldg.

San Francisco: Monadnock Bldg.  
Minneapolis: Plymouth Bldg.  
Buffalo: 957 E. Ferry St.  
Kansas City, Mo.: Interstate Bldg.



# FINANCIAL NEWS

## Bond Issues Proposed

Ala., Gadsden—Public Improvement—City, H. C. Thomas, Clk., will sell at public auction, Nov. 16, \$40,000 6% bonds.\*

Ark., El Dorado—City Hall—City, J. F. Vantrease, Clk., will call election Dec. 15 on \$150,000 bonds; Archie D. Murphy, Mayor.

Ark., Mena—Judgment—City plans \$12,500 bond issue. Address City Clerk.

Fla., Apalachicola—Street—City Comm., R. Don McLeod, Jr., City Atty., plans \$100,000 bond election.

Fla., Arcadia—County Hospital—De Soto County voted \$300,000 bonds. Address County Commrs.

Fla., Bartow—Road—Polk County Commrs., J. D. Raulerson, Clk., receive bids Nov. 11 for \$625,000 6% Special Road and Bridge Dist. No. 12 and \$325,000 5½% Special Road and Bridge Dist. No. 13 bonds.

Fla., Bradenton—School—Board of Education of Manatee County rejected bids for \$405,000 bonds; receives bids Dec. 10 for bonds; B. D. Gullett, County Supt.\*

Fla., Dunnellon—Municipal Improvement—City plans \$300,000 bond election for street, water and sewer improvement. Address City Clerk.

Fla., Fernandina—Road—Nassau county voted \$580,000 bonds. Address County Commissioners.\*

Fla., Fort Lauderdale—School—Jas. S. Rickards, Supt. of Public Instruction, receives bids Nov. 9 for 5½% bonds; \$200,000 Special Tax School Dist. No. 3; \$100,000 Special Tax School Dist. No. 4 bonds.

Fla., Frostproof—City voted \$175,000 bonds; \$90,000, street; \$85,000, water works. Address Town Clk.\*

Fla., Marianna—Paving—City contemplates \$60,000 bond election. Address City Clk.

Fla., Maitland—Water Works—City voted \$40,000 bonds. Address City Clerk.

Fla., Miami—County Armory—Dade County Commrs. will sell \$100,000 bonds.

Fla., Miami—Road—Dade County Commrs. plan selling \$800,000 bonds

Fla., Moore Haven—Road—Glades county, District No. 11, voted \$550,000 bonds; District No. 12 votes Nov. 24 on bonds. N. S. Wainwright, Clerk, Circuit Court.\*

Fla., Ocala—Road—Marion County Commrs. plan \$4,000,000 bond election.

Fla., Palatka—Assessment—City, Chowning Cauthorn, Clk., receives bids Nov. 12 for \$157,000 5% Series B Paving bonds.

Fla., Palatka—School—Putnam County Board of Public Instruction may call bond election; C. H. Price, County Supt.

Fla., Palmetto—Municipal Improvement—Chamber of Commerce interested in \$100,000 bond election for schools, and \$300,000 bond election for city jail, city hall, water works extension and electric power plant.

Fla., Pensacola—Golf Course—City voted \$100,000 bonds. Address City Clk.

Fla., Perry—Electric Light—City plans voting on bonds. Address City Clerk.

Fla., Perry—Road—Taylor County Commrs. will call election Nov. 24 on \$1,500,000 bonds.\*

Fla., Punta Gorda—Electric Light, City Hall—City plans voting in about 40 days on \$150,000 6% bonds.

Fla., Salerno—Municipal Improvement—City, Mrs. Jack Whitfield, Clk., voted \$100,000 bonds; \$22,000, white way; \$78,000, bulkhead and seawall.

Fla., Stuart—Municipal Improvement—City, Mayor Taylor, voted \$500,000 bonds; \$25,000, electric; \$75,000, sewer; \$150,000, streets and curbs; \$25,000, parks; \$200,000, waterfront development; Richard F. Ensey, City Engr.\*

Fla., Tampa—Road—Hillsborough County, Palm River section, voted \$80,000 bonds. Address County Commrs.

Fla., Tavares—School—Tavares School Dist. voted \$150,000 bonds; Prof. D. H. Moore, County School Supt.\*

Fla., Wauchula—City Hall—City voted \$90,000 bonds. Address City Clk.

Fla., West Palm Beach—Improvement—City Comm., H. J. Daugherty, Clk., receives bids Nov. 12 for \$950,000 5% bonds.

Fla., West Palm Beach—Road—Bridge—Palm Beach County Commr. receive bids Nov. 14 for \$600,000 5% bonds; Fred. E. Fenno,

Clk. of County Court. Lately noted bids Oct. 23.

Fla., West Palm Beach—School—Palm Beach County Board of Education, J. A. Youngblood, Sec., receives bids Nov. 20 for \$675,000 6% Special Tax School Dists. Nos. 1, 3, 4, bonds.

Fla., Zolfo Springs—Street—Town, Bergie Kight, Clk., receives bids Nov. 9 for \$90,000 6% \$1000 denom. Series A and B bonds.

Ga., Nashville—School—Berrien County Commrs. plan \$50,000 bond election for Nashville School; also bond election for school at Alpha and vicinity.

La., Baton Rouge—Road—East Baton Rouge Parish Police Jury, F. A. Woods, Sec., receives bids Nov. 10 for \$50,000 5% \$1000 denom. Good Roads Bonds—Series R; Sub-Road Dist. No. 4, of Road Dist. No. 2, of Third Ward.

La., Baton Rouge—Streets—East Baton Rouge Parish Police Jury, \$60,000 bonds. Address Parish Police Jury.

La., Lafayette—Municipal Improvement—City plans \$235,000 bond election: \$85,000, water filtration plant; \$140,000, sewerage system; \$10,000, purchase site for filtration plant. Address City Clk.

La., Lake Charles—Municipal Improvement—City, Harry J. Geary, Mayor, will call election Dec. 1 on \$505,000 bonds: \$175,000, sewerage; \$300,000, drainage; \$20,000, park; \$10,000 sidewalks improvement.

La., New Orleans—School—Orleans Parish School Board plans issuing \$2,500,000 bonds; will receive bids Nov. 10 for \$1,500,000 4½% bonds.

La., White Castle—Town votes Dec. 1 on \$28,000 electric light plant and \$7000 street improvement. Address Town Clk.

Md., Annapolis—Water Works—City, Allen B. Howard, Mayor, votes Dec. 14 on \$160,000 4½% bonds.\*

Miss., Jackson—School—Hinds County Board of Supvrs. will sell \$150,000 bonds.\*

Mo., Chillicothe—City Hall—City voted \$50,000 bonds. Address City Clk.\*

Mo., Mexico—School—City votes Nov. 23 on \$300,000 bonds. Address City Clk.\*

Mo., Moberly—Sewerage Disposal Plant, City Hall—City may vote on \$150,000 bonds. Address City Clk.

Mo., Sweet Springs—Water, Sewer—City plans \$110,000 bond election. Address City Clerk.

N. C., Asheville—Public Park—Board of Commrs., E. G. Thompson, Sec.-Treas., receives bids Nov. 30 for \$50,000 4½% \$1000 denom. bonds.

N. C., Four Oaks—Municipal Improvement—Town, N. H. Barber, Clk., will call election Dec. 8 on \$32,000, water works, and on \$38,000, sewer bonds.

N. C., Murphy—Municipal Improvement—Town, B. W. Sipe, Clk., receives bids Nov. 7 for \$40,000 6% water, and \$20,000 6% street bonds.

N. C., Zebulon—Street—Town, E. C. Daniel, Mayor, receives bids Nov. 9 for \$35,000 6% \$1000 denom. bonds.

Okla., Ada—Pontotoc County Commrs. contemplate \$425,000 road bond and \$175,000 jail bond election.

Okla., Bethany—Water Works—City voted \$25,000 bonds. Address City Clk.

Okla., Chandler—Bridge—City contemplates bond election; Carl E. Mattheyer, City Clerk.

Okla., Okemah—Courthouse—Okfuskee County, W. S. Seawell, County Judge, voted \$200,000 bonds.\*

S. C., Newberry—Municipal Improvement—Bond Comm. of Newberry, T. Roy Summer, Sec.-Treas., receives bids Nov. 10 for \$75,000 street improvement, \$25,000 water extension, and \$25,000 sewer extension, 5% \$1000 denom. bonds.\*

Tenn., Cleveland—Street—City defeated \$50,000 bond issue. Address City Clk.

Tenn., Trenton—Road—Gibson County, R. K. Taylor, County Judge, receives bids Nov. 10 for \$500,000 5% \$1000 denom. coupon bonds.

Tex., Angleton—Road—Brazoria County, Dist. No. 26, voted \$300,000 bonds; P. L. Richens, County Commr.

Tex., Bastrop—Road—Bastrop County, Smithville District, defeated \$25,000 bond issue. Address County Commissioners.\*

Tex., Beaumont—Municipal Improvement—

City, Ollie J. Boyd, Mgr., plans voting about middle of Dec. on \$800,000 bonds: \$400,000, paving; \$200,000, sewers; \$100,000, safety improvements; \$50,000, park improvements; \$50,000, purchase Magnolia Park.

Tex., Corsicana—Municipal Improvement—City, J. S. Murchison, Mayor, votes Nov. 7 on \$300,000 bond election.

Tex., Cotulla—Irrigation—La Salle County Water Improvement Dist. No. 1 Commrs. vote Nov. 30 on \$7,300,000 bonds. Address County Judge.\*

Tex., Georgetown—City, John M. Sharpe, Mayor, votes Nov. 30 on \$45,000 paving, and \$30,000 refunding bonds.

Tex., Goliad—Goliad County, Goliad Precinct, plans voting on \$250,000 bonds; Charco and Weesatche Precincts may vote on bonds. Address County Judge.

Tex., Dallas—Road—Dallas County—Commrs. plan calling election about Jan. 1 on \$4,000,000 to \$6,000,000 bonds; J. W. Slaughter, County Commr.

Tex., Mount Pleasant—Water Works—City plans \$50,000 bond election. Address the Mayor.

Tex., Seguin—Road—Gaudalupe County, J. B. Williams, County Judge, voted \$26,000 bonds; H. J. Caulfield, Res. Engr.\*

Tex., Sherman—Paving—City voted \$100,000 bonds; plans selling bonds; O. J. S. Ellington, Mgr.\*

Tex., Slaton—Paving—City, S. F. King, Mayor, will call election Nov. 17 on \$100,000 bonds.

Tex., Teague—Municipal Improvement—City defeated \$75,000 bond issue: \$30,000, paving; \$45,000, water works.

Tex., Uvalde—Paving—City, H. P. Hornby, Mayor, plans selling \$80,000 bonds; Ray Benson, Engr.

Va., Martinsville—Municipal Improvement—City may vote Dec. 5 on \$150,000 bonds: \$45,000, water works; \$45,000, school; \$60,000, paving. Address City Clk.

W. Va., Summersville—Road—Nicholas County, Wilderness Dist., C. E. Stephenson, County Clk., receives bids Nov. 9 for \$90,000 5% \$1000 denom. coupon bonds.

## Bond Issues Sold

Ala., Anniston—Street Paving and Sidewalk—City, W. O. Ward, Clerk, sold \$40,000 5½% bonds to Ward, Sterne & Co., Brown-Marx Bldg., Birmingham.\*

Ark., Arkansas City—Road—Desha County Commrs. sold \$150,000 McGehee Road Dist. bonds to Merchants and Planters Bank of Pine Bluff, at 104.

Ark., Conway—Funding—Conway County, W. W. Harper, County Judge, sold \$75,000 5% bonds to I. B. Tigrett Co., Jackson, Tenn., at par.

Fla., Bartow—School—Polk County Commrs., Bartow, sold to Seasongood & Mayer, 204 Ingalls Bldg., Cincinnati, Ohio, \$200,000 Lakeland bonds, at 108.39; \$250,000 Winterhaven bonds, at 106.57.\*

Fla., Graceville—Sewerage—City, H. Langston, Clk., sold \$42,000 6% bonds to First National Bank of Marianna at premium of \$851.\*

Ga., Tifton—Park, City Commrs., O. F. Barkuloo, Clk., sold \$10,000 bonds to Robinson-Humphrey Co., Citizens & Southern Bank, Atlanta, at premium of \$100.\*

La., Crowley—School—City sold \$50,000 6% bonds to Whitney Central Trust Co., 619 Gravier St., New Orleans, at 100.35.

La., Welsh—Water Works—Town, John W. Armstrong, Mayor, sold \$60,000 5½% bonds to Caldwell & Co., Nashville, at par, accrued interest and premium of \$904.\*

Mo., Cape Girardeau—School—City sold \$300,000 4¾% bonds to Kaufman-Smith & Co., Security Bldg., St. Louis, at par, plus \$375.\*

N. C. Pinebluff—Water Works—Town, Levi Packard, Clk., sold \$30,000 6% bonds to C. F. Finch, Thomasville, N. C., at par, bonus of \$100, and accrued interest.\*

W. Va., Bluefield—Improvement—State Sinking Fund Comm. sold \$100,000 5% bonds to Baker, Watts & Co., Calvert and Redwood Sts., Baltimore, Md., at par, accrued interest and premium of \$1715.

W. Va., Williamson—State Sinking Fund Comm. sold \$250,000 5½% Magnolia Dist. Mingo County bonds to R. M. Grant & Co.,

(Continued on page 140)

In writing to parties mentioned in this department it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## How About Your Credit Information?

**R**ELIABLE credit information often means the difference between safety in business dealings and uncertainty—perhaps losses.

We maintain a highly organized Credit Department, capable of obtaining dependable credit information on domestic or foreign concerns.

Let us supplement the information of your own Credit Department on your more important customers or prospects. We shall be glad to have you give us a trial.



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Capital, Surplus and Undivided Profits  
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### Underwriters and Distributors of Municipal and Corporation Bonds **OTIS & CO.**

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New York Chicago Detroit Cincinnati Denver  
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### IN RICHMOND VIRGINIA

The First National Bank offers complete facilities for quick collections in this territory.

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**JOHN M. MILLER, JR.,**  
President

Resources over \$30,000,000  
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is the motto of this Bank.

Let us tell you about it.

*Our Safety Deposit Vaults are modern, fireproof and burglar-proof. You may rent them as low as \$3.00 per year.*

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In close touch with all of Georgia, offers its aid to those interested in that State.

### **MARYLAND TRUST COMPANY** BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL, \$1,000,000

# 1884

Southern men and women who lived in, or visited Baltimore in the period when this Company was established—which was the year of 1884—will be interested, we believe, in our anniversary book "The Early Eighties: Sidelights on the Baltimore of forty years ago." A copy will be sent upon request.

### **MERCANTILE TRUST & DEPOSIT CO.** OF BALTIMORE

Resources \$21,000,000 A. H. S. POST, Pres. F. G. BOYCE, Jr., Vice-Pres.



## FINANCIAL NEWS

(Continued from page 138)

115 Broadway, New York, at par, accrued interest and premium of \$11,147.

### Building and Loan Associations

Okla., Oklahoma City—Local Building & Loan Assn., 201 N. Robinson St., increased capital.

Miss., Jackson—Profit Sharing Real Estate Building & Loan Assn., capital \$25,000, incorporated; Clarence Winters, A. S. Moore.

Tenn., Bristol—Interstate Building & Loan Assn., capital \$25,000, chartered; Wm. H. Gibson; George E. Comer.

### New Financial Corporations

Ala., Birmingham—People's Finance and Thrift Co., of Birmingham, 1927 Fifth Ave., North, chartered; K. Dean Butler, J. C. Gale interested.

Ark., Smackover—First National Bank of Smackover, capital \$25,000, organized; C. E. Portis, Correspondent.

Fla., Coral Gables—First National Bank of Coral Gables, capital \$50,000, organized; Gilles W. Brown, Correspondent.

Fla., Jacksonville—Fifty Associates, C. Buckman, Pres., 1143 Riverside Ave., plans increasing capital \$500,000 to \$1,000,000.

Fla., Kissimmee—Kissimmee Bank, capital \$25,000, organized; J. L. Wilson, Pres., Social

Center, Ga.; L. W. Winters, Cashier, Sulphur Springs.

Fla., Palm Beach—Palm Beach Guaranty Co., D. F. Dunkle, Pres., plans increasing capital, \$500,000 to \$1,000,000.

Fla., Palmetto—First National Bank of Palmetto, capital \$25,000, organized; Walter E. Arnold, Correspondent.

Fla., Pensacola—Home Savings & Loan Co., capital \$100,000, incorporated; Hunter Brown, Pres.; Thos. A. Johnson, Sec.

Fla., Sebring—Sebring Bank & Trust Co., capital \$100,000, incorporated; George E. Sebring, Pres.; G. M. Chastain, Cashier.

Ga., Atlanta—Unity Trust Co., capital \$1,250,000, incorporated; Val Fitzpatrick, Pres.; J. B. Hodges, Sec.-Treas.

Ga., Savannah—Citizens and Southern Bank, Mills B. Lane, Pres., 22 Ball St., absorbed Commercial Bank of Athens, Hugh H. Gordon, Pres.; known as Citizens and Southern Bank.

La., New Orleans—Lou-ala Investment Co., capital \$400,000, incorporated; Harry Latter, Pres., 202 Camp St.; Henry F. Strack, Sec.-Treas.

Miss., Van Winkle—Thomas E. Quin Investment Co., capital \$20,000, incorporated; Thomas E. Quin, E. W. Freeman.

Mo., Hannibal—Citizens Industrial Loan Co., capital \$50,000, incorporated; V. E. Cunningham, J. P. Richards.

Mo., Savannah—Andrew County Bank, cap-

ital \$20,000, organized; O. V. Sells, Pres.; A. R. Todd, Cashier.

N. C., Asheville—Gullet Investment Co., capital \$100,000, incorporated; J. P. Gullet, J. E. Wilson, The Jefferson.

N. C., Asheville—Plateau Investment Co., capital \$25,000, incorporated; H. C. Brewton, J. F. Jenkins, Forest Rd., Kenilworth.

N. C., Asheville—Sammax Investment Co., capital \$20,000, incorporated; Samuel and Bessie Kaltman, 172 Murdock Ave.

N. C., Lenoir—Lenoir Industrial Bank, capital \$50,000, incorporated; A. G. Foard, Pres.; J. T. Pritchett, Sec.-Cashier.

N. C., Winston-Salem—Insured Mortgage Bond Corp. of North Carolina, Inc. capital \$100,000, incorporated; George Miller Hinshaw, H. W. Spough.

Okla., Hugo—Brown Mortgage Co., capital \$10,000, incorporated; Chas. H. Brown, Hugo; A. B. Brown, Idabel.

Okla., Muskogee—W. E. Rowsey, 705 Exchange National Bldg., and L. W. Rooney plan establishing bank to replace Muskogee Security National Bank.

Tex., Dallas—People's Finance Co., 215 N. St. Paul St., plans increasing capital, \$50,000 to \$100,000.

Va., Richmond—Grace Securities Corp., O. E. Parrish, Pres., Hampton Gardens, plans increasing capital, \$600,000 to \$1,000,000.

W. Va., Beckley—Mortgage Service and Realty Co. of Beckley, capital \$10,000, incorporated; C. F. Lyda, Mt. Hope; J. G. Ridinger, Bluefield.

### WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

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Little Rock, Ark.

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We purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale

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ARCHITECTS, Contractors and Real Estate Men, when planning developments for clients that need financing, are invited to call in a representative from Caldwell and Company.

We are constantly in the market for

*Corporation Bond Issues*

*First Mortgage Bond Issues*

*State, county, city, school, road and drainage bond issues*

..All inquiries will be treated as confidential. We will be glad to render every assistance at our command for the efficient handling of your loan requirements. .

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Offices in principal cities of the country

## THE BANK OF ALABAMA

ENSLEY, ALABAMA

R. A. TERRELL ..... President  
J. W. MINOR ..... Vice-President  
FOSTER HAMILTON ..... Cashier

We Solicit Your Business

## FIRST MORTGAGE REAL ESTATE BONDS

We finance the erection of apartments, office buildings and other business property, through purchase of first mortgage bond issues, in amounts of \$50,000 to \$200,000. Larger loans for construction and on completed buildings negotiated through our New York connections.

## BRANNAN, BECKHAM & COMPANY

Wynne-Claughton Bldg.

Atlanta, Georgia

## We Buy Bonds

City, County, School and Road from  
Municipalities and Contractors

WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO.  
CINCINNATI OHIO

## REAL ESTATE MORTGAGE BONDS

We are interested in the purchase of first mortgage bond issues covering business property, hotels, apartment houses, etc., in amounts of \$50,000 and upwards. Entire issues city, county and district bonds purchased.

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Brown-Marx Bldg.

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Entire Issues Bought

## ROGER B. WILLIAMS, Jr. & CO.

Investments Bonds

67 Wall Street

New York

## Municipal Bonds

Inquiries invited from municipalities and contractors. We buy city, county, district, school, road, lighting, water works and other municipal issues.

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Established 1907

Correspondence Invited

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## HAVE YOU BONDS FOR SALE?

WE BUY ALL CLASSES OF MUNICIPAL BONDS,  
INCLUDING CITY, COUNTY, SCHOOL,  
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Chas. Warner Smith, Vice-President.  
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Manufacturing Bank Stationers

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**750 PONCE de LEON  
Apartment Hotel, Atlanta**

One of the finest apartment houses in the entire South, 750 Ponce de Leon, was 93% rented before completion. Throughout, its owners had the full co-operation of every department in the Adair organization. A \$950,000 issue of Adair Protected Bonds was rapidly absorbed.

## Adair Investors Are Ready To Help

ON the one hand a real need for business buildings, hotels, apartment houses.

On the other, investors all over the United States and in many foreign countries—ready to invest funds upon the recommendation of this company.

Bridging the gap is the Adair Realty & Trust Company.

For many years we have been rendering this service to owners, and

have gained a knowledge of conditions in the South that is valuable to all who plan to build.

We will be glad to discuss details with principals at any time, and are ready to arrange loans from \$250,000 up on well-secured property for the erection of income-producing buildings. We are also glad to suggest to architects, builders and contractors plans of financing which may be helpful to them and their clients.

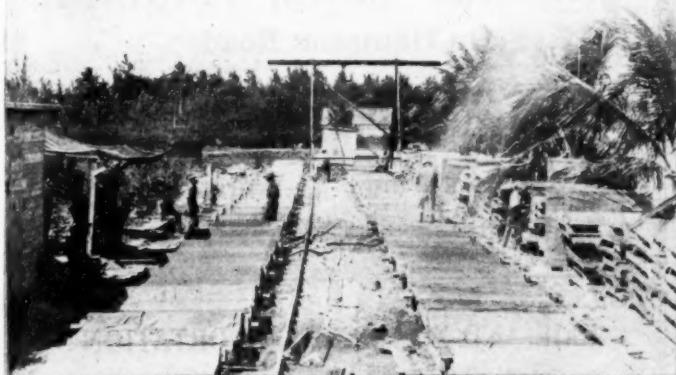
## Adair Realty & Trust Company

*The South's Oldest Mortgage Investment House*

Founded 1865, ATLANTA

MR-33

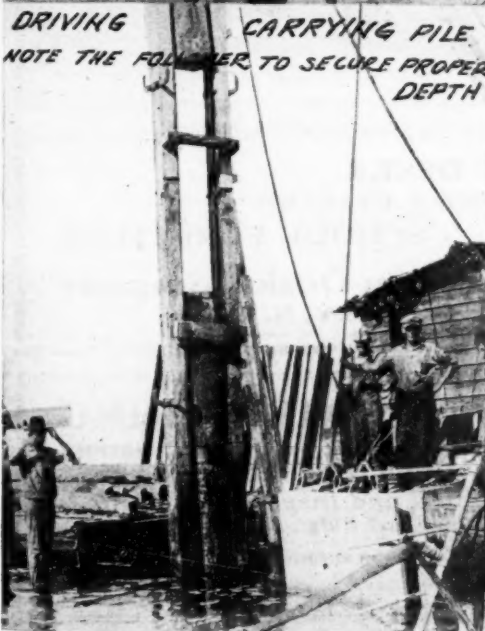
YARD WHERE SLABS ARE SHOT



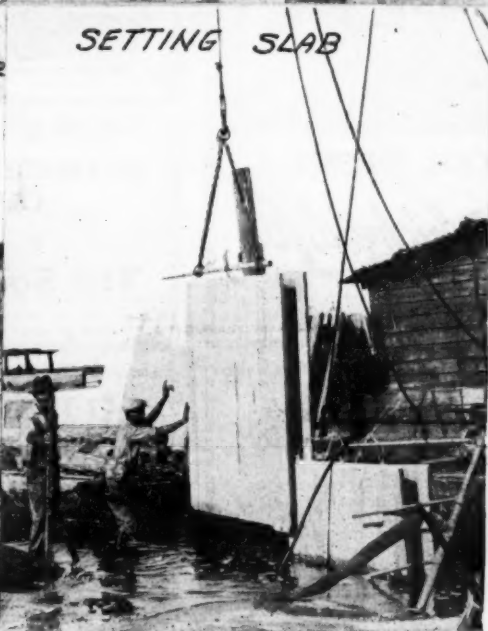
PORTION OF COMPLETED WALL



STORING SLABS

DRIVING CARRYING PILE  
NOTE THE FOLLOWER TO SECURE PROPER DEPTH

SETTING SLAB



## FLORIDA

AGAIN

Proves its progressive-  
ness and the advantage  
of

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By Using the Newly  
Developed

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SLAB  
and PILASTER"  
SEA WALL

The Photographs tell  
the Story

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ARTICLE AND MAY BE  
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BY ANYONE.

In order, however, to insure  
to all users of "GUNITE"  
that they will obtain prompt  
and proper competitive bids  
we have established a Con-  
tract Department, and upon  
application we will be pleased  
to have them prepare esti-  
mates on your work.

This work is being done by  
our Contract Department  
at West Palm Beach, Lake  
Worth and Boca Raton.

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THE RIDDLE CO.  
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Patent Applied for  
Right to use may be  
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Write us for full information on this and other types  
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LAKE WORTH, FLORIDA



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Ice making, or  
Refrigerating Problems**



on which you require expert advice, we will give you the benefit of having your problem studied and suggestions sent you by men who make that problem their life work.

This information is at your service.

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THE ARCTIC ICE MACHINE CO.  
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**OPERA CHAIRS**

**SCHOOL FURNITURE**

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**HICKORY, N. C.**

**BUFFALO LOCOMOTIVE CRANES**

Buffalo all steel 7½ ton Locomotive Crane can be equipped to handle ¾-yard Bucket or with Hook, Block or Magnet. In these days of high-priced labor, it is all important that you install the latest and most efficient material handling and labor-saving devices. Let us tell you how to increase your capacity to a maximum and reduce your costs to a minimum.

Write  
for Catalogue  
and  
Specifications



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**HUMAN ENGINEERING**

**Constructive Service — Investigations**  
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for both Oil and Coal fired Furnaces  
We have perfected a special brick which will give maximum service for each fuel.

**FACE BRICK BUILDING BRICK**  
**SAVAGE MOUNTAIN**  
**FIRE BRICK COMPANY**  
**FROSTBURG MARYLAND**

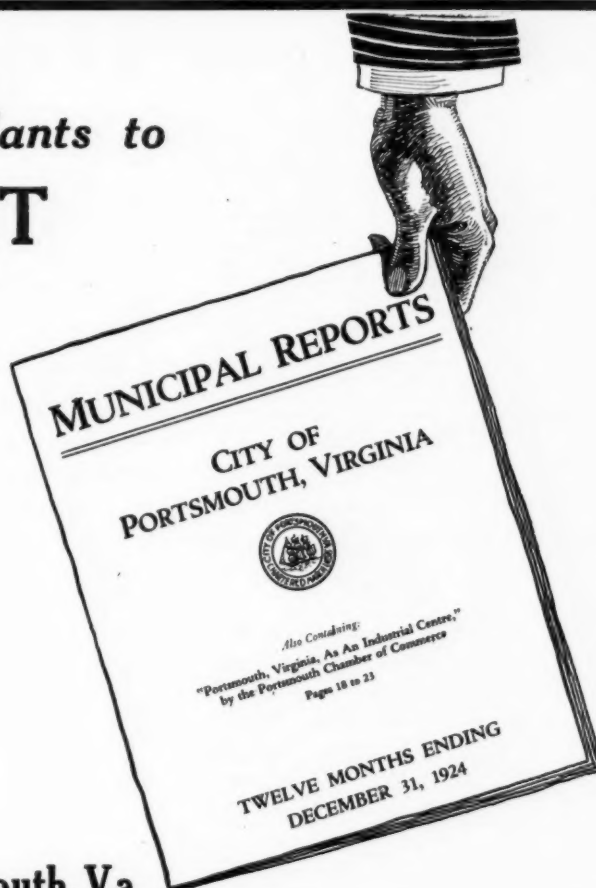
We want those interested in  
establishing manufacturing plants to

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of the advantages offered by the city of  
**PORTSMOUTH, VIRGINIA**

Portsmouth offers unequalled transportation facilities. Eight railroads having terminals in the city or being closely connected with water transportation systems to nearly every part of the world. An adequate and cheap labor supply is close at hand. The water supply meets highest tests for purity and is excellent for boiler purposes. Just beyond the city are some of the nation's greatest oil and coal fields.

If you are interested write us and we will gladly send you this report which gives in detail complete facts about Portsmouth as an industrial city.



**Chamber of Commerce - - Portsmouth, Va.**



BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS



## PROPOSALS

Bids close November 9, 1925.

U. S. ENGINEER OFFICE, Florence, Ala. Sealed proposals will be received here until 11 A. M. November 9, 1925, for furnishing, delivering and installing metal doors at Wilson Dam, Tennessee River. Further information on application.

Bids close November 20, 1925.

PROPOSALS, in duplicate, will be received by The Quartermaster, U. S. Marine Corps, Headquarters, Navy Department, Washington, D. C., until 11:00 A. M., 20th November, 1925, covering the sale of 27,535 pairs suspenders, 4900 pairs shoes, arctic; 500 bags, saddle; 25,123 cans blanco, green; 750 leather cases for telescopic sight; 513 cinchas, horse; 448 cinchas, pony; 5 sets harness, express; 44 sets harness, lead, artillery; 19 sets harness, wheel, artillery; 1 set harness, wheel, artillery, black, double; 1500 headstalls, halter; 90,000 double sheets fly paper, 300 riding saddles; 1800 straps, halter, headstall; 1400 straps, spur; 500 straps, quarter, saddle; 2 trees, double, 3-inch gun, and 4 trees, single, 3-inch gun, located at the Depot of Supplies, 1100 South Broad Street, Philadelphia, Pa. Proposal blanks may be procured from The Quartermaster, U. S. Marine Corps, Room 3207, Navy Building, 18th and B Streets N. W., Washington, D. C. The Quartermaster reserves the right to reject any or all bids and waive informalities therein. Schedule No. 243. C. L. McCawley, Brigadier General, The Quartermaster.

Bids close November 10, 1925.

UNITED STATES DEPARTMENT OF THE INTERIOR Washington, Oct. 27, 1925.—Sealed proposals will be received in this Department until 2 o'clock P. M. Tuesday, November 10, 1925, for furnishing 10,000 sets, more or less, of rollers and hangers for use in mounting General Land Office maps of the United States. Form of proposal, including specifications for the work, will be supplied on application. All proposals must be securely enveloped, marked "Proposals for map rollers and hangers," and be addressed to the Secretary of the Interior, Washington, D. C. The right is reserved to reject any and all bids, or to accept or reject any part thereof in the discretion of the Department. JOHN H. EDWARDS, Assistant Secretary.

Bids close November 24, 1925.

TREASURY DEPARTMENT, office of the Supervising Architect, Washington, D. C., October 26, 1925. SEALED PROPOSALS will be opened in this office at 3 P. M. November 24, 1925, for extension and remodeling, including incidental changes in the mechanical equipment of the United States Postoffice and Courthouse at Shreveport, La. Drawings and specifications may be obtained from the Custodian of the building or at this office, in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close November 16, 1925.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., October 19, 1925. SEALED PROPOSALS will be opened in this office at 3 P. M. November 16, 1925, for new one-story mailing vestibule, storage room, etc., as an addition (about 14 feet by 30 feet in size) to the U. S. Postoffice at Fairmont, W. Va. Drawings and specifications may be obtained at this office or at the office of the custodian, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Bids close November 30, 1925.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., Oct. 30, 1925.—SEALED PROPOSALS will be opened in this office at 3 P. M. Nov. 30, 1925, for the mechanical equipment of buildings, and outside services, at the Federal Industrial Institution for Women, for the Department of Justice at Alderson, W. Va. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and who have established a record for expedition on contracts of similar character and magnitude. The fact that any concern obtains a set of the plans and specifications from any source whatever and submits a bid shall not constitute a waiver of the foregoing stipulation. JAS. A. WETMORE, Acting Supervising Architect.



Bids close November 30, 1925.

**TREASURY DEPARTMENT**, office of the Supervising Architect, Washington, D. C., October 23, 1925.—**SEALED PROPOSALS** will be opened in this office at 3 P. M. November 30, 1925, for construction (except mechanical equipment) of buildings for the Federal Industrial Institution for women for the Department of Justice at Alderson, W. Va. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment and organization to insure speedy completion of the contract, and who have established a record for expedition on contracts of similar character and magnitude. The fact that any concern obtains a set of the plans and specifications from any source whatever and submits a bid shall not constitute a waiver of the foregoing stipulations. Jas. A. Wetmore, Acting Supervising Architect.

Bids close November 16, 1925.

### \$120,000 6% Street Improvement Bonds

Lake City, Fla.

Notice is hereby given that the City Commission of the City of Lake City, Florida, will up to 8 o'clock P. M. on the 16th day of November, 1925, receive bids for the sale of \$120,000 Street Improvement Bonds of said city at the office of the City Commission. These bonds are general obligations of the city, issued against special assessments for street paving under Chapter 9898, Laws of 1923, authorizing taxes for the bonds in case of any deficiency in the assessments. The bonds are in the denomination of One Thousand Dollars (\$1000) each, bearing interest at the rate of six per cent, payable semi-annually June 1 and December 1, said bonds to be dated December 1, 1925, and mature in ten equal annual installments, December 1, 1925, to December 1, 1936, inclusive. The City Commission reserves the right to reject any and all bids. A certified check for two per cent (2%) of the par value of said bonds, payable to the order of City Commission of the City of Lake City, Florida, must accompany each bid.

Dated this 20th day of July, 1925.

E. A. WRIGHT,  
City Auditor and Clerk.

Bids close November 24, 1925.

### Bridge Construction

Palatka, Fla.

**SEALED PROPOSALS** for a **REINFORCED CONCRETE BRIDGE**, a steel lift span, and an earth filled causeway, for the Putnam County Memorial Bridge, about 4200 feet long, across the St. Johns River at Palatka, Florida, will be received at the office of the Bond Trustees for Special Road and Bridge District Number Seven of Putnam County, Florida, at Palatka, Florida, until 10 o'clock A. M. of the 24th day of November, 1925, and at that time and place will be publicly opened and read.

Each bidder shall file with his bid a surety company bond, executed by a surety company authorized by the State of Florida to do a surety business in this State, in an amount equal to the bid and guaranteeing the execution and complete performance of the contract if awarded upon such bidder's proposal.

Form of contract, plans and specifications may be examined at the office of the Bond Trustees for Special Road and Bridge District Number Seven of Putnam County, Florida, in Palatka, Florida.

Form of contract, copies of plans and specifications may be had from the above Trustees for \$25, which \$25 will be returned when the plans and specifications are returned intact, provided they are not retained more than three months.

The right is reserved to reject any or all bids, in the discretion of said Bond Trustees. **BOND TRUSTEES FOR SPECIAL ROAD AND BRIDGE DISTRICT NO. 7 OF PUTNAM COUNTY, FLORIDA.**

By J. W. HART, Secretary.

Bids close November 12, 1925.

### \$25,000 5% Public School Building Bonds

Society Hill, S. C.

Sealed bids for building bonds of Society Hill School District No. 13 of Darlington County, South Carolina, in the sum of \$25,000 of the denomination of \$500 or \$1000 each, at the option of the purchaser, payable twenty (20) years after date and bearing interest at the rate of 5% per annum, payable semi-annually, will be received at my office in Society Hill, South Carolina, until the 12th day of November, 1925, at 12 o'clock noon. Every bid must be accompanied by a certified check for \$500 to secure compliance therewith. The right is reserved to reject all bids.

A. M. COKER,  
Chairman Board of Trustees.

Bids close November 16, 1925.

### Bridges and Culverts

Sanford, Fla.

Sealed proposals will be received by the Commissioners of the County of Seminole, State of Florida, at the office of the Clerk of the Circuit Court of the County of Seminole, at Sanford, Florida, at or before 10 A. M. on the 16th day of November, 1925, for the grading, paving and building of bridges and culverts on 42 miles of highway, including approximately the following quantities:

93,450 cu. yds. grading.  
256,800 cu. yds. hydraulic fill.  
80,000 cu. yds. drag line fill.  
300,913 sq. yds. macadam base.  
310,416 sq. yds. surface treatment.  
15,000 sq. yds. sheet asphalt.  
664 lin. ft. creosoted trestle bridges.  
2 concrete bridges, 24-ft. span.  
2 concrete bridges, 16-ft. span.  
9 concrete culverts.

Each proposal shall be accompanied with a certified check, made payable to V. E. Douglass, Clerk of the Circuit Court of Seminole County, in the sum of 3 per cent of the amount of the bid.

The successful bidders will be required to give bond equal to 50 per cent of the amount of his or their bid, such bond to be executed by a surety company licensed to do business in the State of Florida, and approved by the Board of County Commissioners.

Copies of the plans and specifications may be seen at the office of the Clerk of the Circuit Court in Sanford and at the office of Fred T. Williams, Engineer, Sanford, Florida.

The County Commissioners reserve the right to reject any or all bids or accept any bid, or any part thereof, which they deem to be for the best interest of the county.

JOHN MEISCH,  
Chairman Board of County Commissioners.  
V. E. DOUGLASS,  
Clerk of the Circuit Court.

Bids close November 12, 1925.

### General Repairs to the Roofing, Monitors and Appurtenant Structures of the Mt. Royal Pumping Station of the Bureau of Water Supply.

WATER DEPARTMENT.

Baltimore, Md.

Sealed proposals in duplicate, endorsed "Proposals for Making General Repairs to the Roofing, etc., of the Mt. Royal Pumping Station of the Bureau of Water Supply," addressed to the Board of Awards of Baltimore City, will be received at the office of the City Register, City Hall, Baltimore, Md., until 11 A. M. Thursday, November 12, 1925, at which time they will be publicly opened and read.

Specifications and proposal form may be obtained at the office of the Water Engineer, City Hall, Baltimore, Md., on and after November 1, 1925. A charge of \$5.00 will be made for each set of specifications. This amount will be refunded upon their return in good condition, either by the submission of a bid or to Room 205, City Hall, not later than the day of opening bids.

All bids must be accompanied by a certi-

fied check of the bidder on a clearing-house for the sum of One Hundred Dollars (\$100), made payable to the order of the Mayor and City Council of Baltimore, and the successful bidder will be required to give satisfactory bond for the faithful performance of the agreement equal in amount to the value of the contract.

The Board of Awards reserves the right to reject any or all bids.

Approved.

V. BERNARD SIEMS,  
Water Engineer.

Bids close November 10, 1925.

### Road Construction

Inverness, Fla.

Sealed proposals addressed to the Board of County Commissioners of Citrus County, Inverness, Florida, and marked "Sealed Proposal," will be received until 11 o'clock A. M. November 10, 1925, to be opened immediately thereafter, for furnishing material, equipment and labor and constructing certain work on the Lecanto-Homassa road approximately as follows:

74,000 sq. yds. Highway Paving, including Clearing and Grubbing, Grading, Drainage Structures and Appurtenances.

Each bid is to be on blank form furnished by the Clerk, and is to be accompanied by a certified check or bid bond issued through a local agency, by a bonding company qualified to do business in the state, made payable to Citrus County for \$5000 or for 5 per cent of bid on any portion less than the whole.

Certified check or bid bond will be forfeited as liquidated damage if contract and bond are not executed within the time specified if proposal is accepted; otherwise will be returned within ten days.

The right is reserved to reject any and all bids.

Bids may be submitted as follows: (1) Clearing and Grubbing, Grading and Drainage Structures, on (2) Paving Foundations, on (3) Paving Surfaces, separately and on all as a whole.

After November 6 plans and specifications may be seen at the offices of the Engineers, and specifications may be obtained from the Clerk upon payment of \$2.00 to cover cost of reproduction.

CLAUD CONNOR, Clerk.

E. V. CAMP & ASSOCIATES,  
Consulting, Supervising and Testing Engineers, Atlanta, Ga.; Bartow, Fla.; Jacksonville, Fla.

Bids close November 17, 1925.

### Street Improvements

Bartow, Fla.

Sealed proposals addressed to THE CITY OF BARTOW, Bartow, Florida, and marked "Sealed Proposal," will be received until 2 o'clock P. M. on November 17, 1925, to be opened immediately thereafter, for furnishing material, equipment and labor, and constructing certain work approximately as follows:

75,000 square yards street paving. Also all necessary curbing, grading, drainage and appurtenances. Bids will be received on Limerock and "Bartow" Clay foundations and Sheet Asphalt, Asphaltic Concrete and similar pavements.

Each bid is to be on blank forms furnished by the Clerk, and is to be accompanied by a certified check, or bid bond issued through a local agency, by a bonding company qualified to do business in the State, made payable to THE CITY OF BARTOW, for \$5000, or for 5 per cent of bid on any portion less than the whole.

Certified check or bid bond will be forfeited as liquidated damage if contract and bond are not executed within the time specified, if proposal is accepted, otherwise will be returned within ten days.

The right is reserved to reject any and all bids.

Plans and specifications may be seen at the office of the Clerk and the offices of the Engineers, and specifications may be obtained from the Clerk upon payment of \$2 to cover cost of reproduction.

G. J. McNAMEE, Clerk.

E. V. CAMP AND ASSOCIATES, INC.,  
Consulting, Supervising and Testing Engineers, Atlanta, Ga.; Bartow and Jacksonville, Fla.

Bids close November 17, 1925.

**Street Improvements**

Saluda, N. C.  
Sealed proposals will be received by the Mayor and Board of Aldermen of the City of Saluda, N. C., at the office of the Mayor in Saluda, N. C., until 11 A. M. November 17, 1925, for Street Improvements.

The work will consist of about:  
34,000 sq. yds. of asphalt or concrete or other pavement, with the necessary excavation, curb and gutter, storm-water drains and sidewalks; also water and sewer lines and connections under paving.

Proposals must be marked "Proposal for Street Improvements."

All bids must be upon blank forms provided in the Proposal, Specifications and Contract.

Each bid must be accompanied by a certified check for \$3000 as evidence of good faith.

Plans and specifications will be on file at the Clerk's office in Saluda, N. C., and at the office of the Engineer in Durham, and copies of the specifications, form of proposal, etc., will be mailed upon application to the Engineer at Durham, N. C.

The right is reserved to reject any or all bids.

G. R. LITTLE, Mayor.  
WALTER THOMPSON, Clerk.  
GILBERT C. WHITE CO., Engineer.  
Durham, N. C. and Asheville, N. C.

Bids close December 1, 1925.

**Street Improvements**

Gulfport, Miss.  
SEALED PROPOSALS will be received until 10 o'clock A. M. December 1, 1925, by the Mayor and Board of Commissioners of the City of Gulfport, Mississippi, at the City Hall, for furnishing all labor, tools, equipment, materials and other things necessary for the construction and completion of a system of street improvements in accordance with the plans and specifications now on file in the office of the City Clerk, and duplicate copies on file in the office of the City Engineer.

The proposed improvement embraces the following general items and approximate quantities:

- 145,000 square yards street paving (various types).
- 53,000 square yards concrete sidewalks.
- 2,300 square yards street and driveway crossings.
- 16,700 lin. ft. plain concrete curb.
- 132,000 lin. ft. concrete curb and gutter.
- 2,000 lin. ft. 4" vitrified sewer pipe.
- 14,000 lin. ft. 6" vitrified or concrete sewer pipe.
- 2,000 lin. ft. 8" vitrified or concrete sewer pipe.
- 21,000 lin. ft. 12" vitrified or concrete sewer pipe.
- 3,300 lin. ft. 15" vitrified or concrete sewer pipe.
- 3,400 lin. ft. 18" vitrified or concrete sewer pipe.
- 1,700 lin. ft. 21" vitrified or concrete sewer pipe.
- 1,600 lin. ft. 24" vitrified or concrete sewer pipe.
- 3,700 lin. ft. 27" vitrified or concrete sewer pipe.
- 1,100 lin. ft. 30" vitrified or concrete sewer pipe.
- 200 catch basins.
- 100 manholes.
- 25 gutter basins.
- 15,000 cubic yards extra grading.
- 350 cubic yards mass concrete.
- 10,000 lbs. reinforcement steel.
- 40,000 B. M. feet lumber.

The improvement is divided into six separate sections, and bids may be submitted on each section separately or on any combination of sections.

All proposals must be accompanied by a certified check issued by some bank in said City, the amount of said checks to vary from 3% to 7½% of the estimated total of each bid.

Successful contractors will be required to furnish surety bonds for the full amount of their contracts.

Copies of the plans and specifications can be procured from the City Engineer after November 10 by depositing the sum of \$20 for each set.

Deposits will be refunded only to those who submit proposals on the improvement.

All communications should be addressed to Hobart D. Shaw, City Engineer, Gulfport, Miss.

The Board reserves the right to reject any or all proposals.

JOS. W. MILNER, Mayor.  
HOBART D. SHAW, City Engineer.

Bids close November 17, 1925.

**Paving, Sewers, Water Mains, Etc.**

Sealed proposals will be received by the Board of Bond Trustees of the Town of Holly Hill, Florida, until 7 o'clock P. M. on the 17th day of November, 1925, at the Town Hall of Holly Hill, Florida, for the furnishing of materials and construction of approximately 60,000 square yards of brick, concrete or bituminous pavements with the necessary curbs, excavation and appurtenances: approximately 20,400 lineal feet of storm drains, 18 inch to 10 inch, with accessories; 6500 lineal feet of 6-inch sanitary sewer connections; 72,000 lineal feet of water works distribution system, 12 inch to 1½ inch, with valves, hydrants and accessories; one steel tower and tank, and miscellaneous small work, all complete and in accordance with plans and specifications at the office of the Town Clerk, in the Town Hall at Holly Hill, or at the office of the Engineer in New Smyrna, Florida.

Bids will be received on the whole or any section of the work.

Plans and specifications may be examined at the office of the Town Clerk, at the Town Hall in Holly Hill, or at the office of the Engineer in New Smyrna, Florida. Copies of the specifications may be obtained from the above places upon receipt of a deposit of Five (\$5) Dollars, which will be returned on a bona fide bid. Copies of the plans may be obtained on the payment of Twenty-five (\$25) Dollars.

Each bidder must accompany bid with a certified check or a bidder's bond for an amount not less than Five (5%) per cent of the amount bid, drawn to the order of Dean T. Smith, Chairman of the Board of Bond Trustees, Town of Holly Hill, Florida. The right is reserved to reject any or all bids in whole or in part.

BOARD OF BOND TRUSTEES,  
HOLLY HILL, FLA.  
DR. DEAN T. SMITH, Chairman.  
L. S. GRABE.  
JOHN SCHMAHL.  
FRANK R. MURPHY,  
Clerk of Town.

(Seal)  
N. A. HOTARD, Engineer.

Bids close November 17, 1925.

**Street Improvements and Storm Drainage**

Sealed proposals will be received by the Mayor and Council at the office of the Clerk of Canton at 10 A. M. on the 17th day of November, 1925, for the furnishing of all labor, materials, equipment and other things necessary for the construction of street improvements and storm drainage in the Town of Canton, Georgia.

Proposals will be received on the following types of street pavements: CONCRETE, VIBROLITHIC, BRICK, SHEET ASPHALT, ASPHALTIC CONCRETE, ROCK ASPHALT, FINLEY SHEET ASPHALT AND WARRENITE.

The work will consist of the following estimated quantities:

- 22,500 sq. yds. Street Pavement.
- 5,800 sq. yds. Sidewalks.
- 900 sq. yds. Driveways.
- 9,900 lin. ft. Curbing.
- 910 lin. ft. Radl Curbing.
- 710 lin. ft. Headers.
- 11,500 cu. yds. Grading.
- 2,080 cu. yds. Trenching and Backfilling.
- 50,300 bricks. Brick Catch Basins.
- 24,100 pounds Cast Iron for Catch Basins.
- 2,610 lin. ft. 6-inch to 30-inch Pipe.

Proposals must be submitted on regular forms accompanying the specifications and must be accompanied by a certified check or bidder's bond for two thousand (\$2000) dollars, payable to the Mayor of Canton.

An acceptable surety bond for the amount of the contract price, and a five (5) year maintenance bond for twenty-five (25%) per cent of the contract cost will be required.

Plans and specifications are on file at the office of T. A. Doss, Clerk, at Canton, Ga., and copies of the specifications may be secured from Knox T. Thomas, Engineer, upon payment of five (\$5) dollars.

The right is reserved to reject any or all bids, and to waive formalities, and to accept any bid that the interest of the Town of Canton may require.

E. A. McCANLESS, Mayor,  
T. A. DOSS, Clerk,  
Canton, Ga.

KNOX T. THOMAS, Engineer,  
308-9 Wynne-Claughton Bldg.,  
Atlanta, Ga.

Bids close November 10, 1925.

**Sanitary Sewers and Water Works**

China Grove, N. C.

Sealed proposals will be received by the Town of China Grove, North Carolina, at the City Hall, for furnishing material and labor for a sanitary sewer and waterworks system in and for the Town of China Grove, North Carolina, until 8 o'clock P. M. November 10, 1925, at which time they will be opened and read publicly.

The principal items of work are approximately as follows:

- 4,200 Feet 8-inch Cast-Iron Pipe.
- 17,016 Feet 6-inch Cast-Iron Pipe.
- 8.79 Tons Cast-Iron Specials.
- 9,200 Feet 1½-inch Galvanized Iron Pipe.
- 43 Hydrants.
- 1 Set Hydrant and Valve Wrenches.
- 7 8-inch Hub End Gate Valves and Boxes.
- 21 6-inch Hub End Gate Valves and Boxes.
- 18 1½-inch Screwed Gate Valves and Boxes.
- 1 Deep Well Pump House.
- 1 75 G.P.M. Motor-Driven Deep Well Pump.
- 1 75,000-Gallon Tank on 100-ft. Tower.
- 7.6 Miles 8-inch Sewer Pipe with necessary Manholes and accessories.
- 5 Sedimentation Tanks.

Each bid must be accompanied by a certified check on a bank satisfactory to the town officials, or a bidder's bond acceptable to the town officials for five (5%) per cent of the amount of bid, drawn to the order of the Town of China Grove, North Carolina.

All bids will be compared on the basis of the Engineers' estimate of the quantity of work to be done. Copies of specifications may be obtained from the Engineers or Town Clerk upon receipt of a deposit of \$5.00, which will be returned to bona fide bidders.

Plans may be seen at the office of the Engineers, or at the office of the Town Clerk, or a set will be furnished by Engineers upon payment of \$10, which will not be returned to bidder.

The right is reserved to reject any or all bids, and the contract may be awarded in part to one or more bidders as considered to be the best interest of the town.

TOWN OF CHINA GROVE, NORTH CAROLINA.

A. A. HURLEY, Mayor.  
W. L. COOPER, Clerk and Treasurer.  
J. B. MCCRARY ENGINEERING CORPORATION, Engineers,  
Atlanta, Ga.; Charlotte, N. C.

Bids close November 18, 1925.

**School Building**

Fort Myers, Fla.

Notice is hereby given that the Board of Public Instruction for the County of Lee, State of Florida, in an adjourned session on November 18, A. D. 1925, at 10 o'clock A. M., in the office of the County Superintendent, will open and consider sealed bids for the construction and erection of West Fort Myers School Building, according to plans and specifications prepared by Leslie N. Irdell, Architect, Tampa, Florida. Plans and specifications may be procured from Leslie N. Irdell, Campbell Building, Tampa, or Supt. J. Colin English, Fort Myers, Fla., upon deposit of \$10. All bids must be accompanied by a certified check for 2 per cent as a guarantee that the bidder will comply with his bid to be accepted by the Board.

The right is reserved to reject any and all bids. Done by the order of the Board of Public Instruction this the 7th day of October, 1925.

(Signed) C. W. BARTLESON,  
Chairman.

Attest:  
J. COLIN ENGLISH, Sec. and Supt.

**Building Material and Equipment**

Macon, Ga.

Wesleyan College will soon be in the market for building material and equipment. Want your catalogue and price list.

A. D. RAY, Supt.



## Street Improvements

Miami, Fla.

Bids will be received at the office of the South Florida Golf and Country Club, 221 East Flagler St., Miami, Florida, up to 10 A. M. November 10, 1925, for grading and paving approximately 4 miles of streets in Golf Park Subdivision.

Profiles and specifications may be had at office of Daniel E. Clune, Chief Engineer, Administration Building, Hialeah, Florida, or at office of Resident Engineer, Golf Park Subdivision.

Bids close November 24, 1925.

## Water-Purification Plant

Lexington, S. C., Oct. 15, 1925.

Sealed proposals will be received by the Board of Public Works at Lexington, South Carolina, until 11 o'clock A. M. on the 24th day of November, 1925, at the City Hall, at which time all proposals will be publicly opened and read for furnishing materials, labor, tools and equipment to complete such contracts as may be entered into for the construction of a Water Purification Plant, consisting of the following:

1 Water Purification Plant, consisting of brick and concrete building, coagulating and mixing basin.

1 Reinforced Concrete Reservoir.  
2 500 G. P. M. Fire Pumps.

Plans and specifications will be on file at the office of the Clerk, Lexington, South Carolina, and at the office of the Engineers, and will be mailed upon application accompanied by a check for \$10, which will be returned to bona fide bidders.

Each bid must be accompanied by a certified check to the amount of 5% of the bid, and not less than \$250, payable to the Treasurer of Lexington, South Carolina, without recourse.

All bids must be placed in a sealed envelope and endorsed on the outside "PROPOSAL FOR WATER PURIFICATION PLANT." The city prefers to let the entire work in one contract, but reserves the right to waive technicalities and let the work in parts to separate bidders for labor and materials, or let such parts of the work as is considered to be the best interest of the city, and reserves the right to reject any or all bids.

Contractors are cautioned to examine the plans and specifications thoroughly, form

of contract, bond and conditions under which the work will be done before bidding.

By order of the Board.

J. S. CAUGHMAN, Chairman.

W. P. ROOT, JR., Clerk.

Engineers:

THE CAROLINA ENGINEERING CO.,

917 Johnston Building.

Charlotte, North Carolina.

G. H. BISHOP, Consulting Engineer.

Bids close November 25, 1925.

## Municipal Auditorium

Orlando, Fla., Oct. 26, 1925.

Sealed proposals will be received until 10 A. M. Saturday, November 25, 1925, at the office of the Mayor, in the city hall at Orlando, Florida, for the erection of a Municipal Auditorium for the City of Orlando, Florida, according to plans and specifications prepared by the architects, Krug & Parrish, 30 East Church St., Orlando, Fla.

Each bid shall be accompanied by a certified check or bidder's bond to the amount of 2% of the bid, and the successful bidder will be required to furnish a satisfactory surety bond to the amount of 50% of the contract price guaranteeing the faithful performance of the contract. The certified checks of the unsuccessful bidders will not be held longer than 15 days from the date of the reception of bids.

The owners reserve the right to reject any or all bids and to waive any informality in any bid.

Plans and specifications may be had upon application to the Architects and upon the deposit of \$15. Deposit will be returned when plans are returned to Architects.

Bids close December 8, 1925.

## Dredging and Jetty Construction

October 20, 1925.

Sealed proposals for dredging and jetty construction at St. Lucie Inlet will be received by the Board of Commissioners of the St. Lucie Inlet District at the office of the Board, Stuart, Florida, until 10 o'clock A. M. December 8, 1925.

Specifications and plans can be obtained from the Engineer and can be seen at the office of the Secretary of the Board of Commissioners of the St. Lucie Inlet District, Stuart, Florida.

BOARD OF COMMISSIONERS ST. LUCIE INLET DISTRICT.

C. VAN ANGLE, Secretary.

Stuart, Florida.

J. M. BRAXTON, Chief Engineer,  
319 St. James Building, Jacksonville, Fla.

Bids close December 1, 1925.

## Portland Cement

Mobile, Ala.

Sealed proposals will be received by the Alabama State Docks Commission at their office, Second Floor, State Office Building, Mobile, Alabama, until 10 A. M. December 1, 1925, and then publicly opened, for furnishing and delivering about 54,000 barrels of Portland Cement.

A deposit of One Thousand (\$1000) Dollars in cash or certified check, or in lieu thereof, a bidder's bond for like amount with an approved Company, is required with each proposal.

Specifications and proposal forms may be obtained from the office of the Purchasing Agent, Second Floor, State Office Building, Mobile, Alabama.

A bond to the amount of 50% of the sum bid is required with notarial contract.

The right is reserved to reject any or all bids and to waive informalities.

ALABAMA STATE DOCKS COMMISSION.

WILLIAM L. SIBERT, Chairman.

Bids close December 15, 1925.

## Concrete Apron Wharf

Mobile, Ala.

Sealed proposals will be received by the Alabama State Docks Commission at their office, second floor, State Office Building, Mobile, Alabama, until 10 A. M. December 15, 1925, and then publicly opened, for furnishing and constructing a Concrete Apron Wharf for Pier No. 2. About 19,700 cubic yards of concrete, 3400 concrete piles, 75,000 square feet creosoted sheet piling and other materials are included.

A deposit of Fifty Thousand (\$50,000) Dollars in cash or certified check, or in lieu thereof a bidder's bond for like amount with an approved company, is required with each proposal.

Specifications, proposal forms and plans are on file in the office of the Purchasing Agent, second floor, State Office Building, Mobile, Alabama. Complete sets will be furnished to prospective bidders on deposit of \$50, which will be refunded to depositors who submit formal proposals, or return sets in good condition, within thirty days of opening of bids.

A bond to the amount of 50 per cent of the sum bid is required with notarial contract.

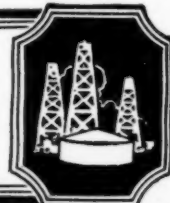
The right is reserved to reject any or all bids and to waive informalities.

ALABAMA STATE DOCKS COMMISSION.

WILLIAM L. SIBERT, Chairman.



## CLASSIFIED OPPORTUNITIES



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For industrial sites; pine and hardwood timber; brick shales; clays, large or small water powers; farms in a prosperous section. Write, with detail, as to your requirements.

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FOR SALE TO SETTLE ESTATE—Brown Stone Quarries and 125-acre farm located in York Co., Penna., near Penna. R. R. line, Harrisburg, Pa., to Washington, D. C. Entire tract underlaid with the very best brownstone. Copies of U. S. report and Penn. Geological Survey, with sample of stone, sent on request. Personal investigation solicited; land not needed for immediate quarry purpose is well adapted for fruit or general farming; reasonable price and terms for prompt purchase.

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Rate 30 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost allow seven words of ordinary length to a line. When the advertisement contains a number of long words proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisement accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c per line; 300 lines, 26c per line; 500 lines or more, 25c per line.

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WANTED TO LEASE or purchase gravel bed located in State of Virginia or North and South Carolina. Reply  
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FOR LEASE—Upon liberal terms, fifteen hundred acres, steam, gas or by-product coal. Non-union section of West Virginia. Favorable operative conditions. Railroad into property.

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## FOR SALE.

Timber, cut-over lands, salt-water frontage and sea-island property.

J. W. BARNES,  
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WANT TO BUY good tracts of Pine Timber, any size, anywhere. Send full particulars—cruise, map, etc.

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H. H. WEFEL, JR., Mobile, Alabama.

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NORTHERN REALTIES CO., INC., New Birks Building, Montreal, Canada.

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2505 A. FINE FARM LAND, 410 A. CLEARED, 350 A. HIGHLY CULTIVATED. 1000 A. CAN BE CLEARED FOR FARMING EASY. LAND WILL RAISE 30 BU. CORN PER A. WITHOUT FERTILIZER. ONE OF BEST FARMS IN N. C.

NOW THE TIMBER?  
ESTIMATED FROM 15,000,000 TO 20,000,000 FEET OF ALL GRADES PINE, POPLAR, GUM, ETC. WILL RUN 40% NO. 2 AND BETTER. 10 MILES FROM R. R. AND 3 MILES FROM CAPE FEAR RIVER BOAT LANDING. IF INTERESTED WRITE OR WIRE. No. 6510, CARE OF MANUFACTURERS RECORD.

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##### FOR SALE.

400 Acres, near Jacksonville; one mile water front. ERNEST YAGER, 2835 St. Johns Ave., Jacksonville, Fla.

BEST FARMS, Groves, Graded Schools, Churches, Railroad, Highways, Lime, Kaolin Deposits, Famous Springs, Lakes, Hunting, Fishing; in Marion County.  
SHOCKLEY, Lowell, Fla.

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FLORIDA REALTY CO.,  
John W. Lepper, Pres. Box 204.

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For further information address  
DEAN-TYLER COMPANY, INC., REALTORS.

FLORIDA INVESTMENTS. — Acreage tracts, timber tracts, subdivisions and hotel sites, any section in Florida. Some bargains with quick turnovers and large profits on small investments assured; 25 years' experience. ASK ANYBODY. N. D. SUTTLES & COMPANY, Jacksonville and West Palm Beach, Fla.

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WHITE-RIVERS CO.,  
Realtors,  
Tallahassee, Florida.

### FARM, FRUIT AND TRUCK LANDS

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Walker Apartment Building,  
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Free book tells truth about Florida land; monthly payments \$1 an acre. Orange groves, planted, cared for, 10 per cent above cost.

SILVESTER E. WILSON,  
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FLORIDA SALES COMPANY, INC.,  
120 Milk Street,  
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#### FLORIDA INVESTMENTS MANATEE COUNTY.

The county that stands 7th in production of fruit and vegetables in the U. S. A solid foundation back of your investments—Farm Lands—Business Properties—Lots or Acreage for Subdivisions.

Full information on request—we can buy for you and we can resell for profit.

References: Bradenton Bank & Trust Co.  
MANATEE LAND SALES CO.,  
Bradenton, Fla.

#### WILLIAM H. COLLIER, INC., INVESTMENT BROKERS, DE LAND, FLORIDA.

offers a reliable, distinctive service in real estate investments. Our weekly letter is reliably informative. Your name and address will bring it to you without obligation. Address Claude Wright, General Manager, William H. Collier, Inc., De Land, Florida.

#### FLORIDA INFORMATION.

Did you read the article in Sunland Magazine by the author of Manufacturers Record this month? My family came to Florida in 1834. We have lived here and been educated here ever since. I am in a position to give almost any information you might require. For reference—Fidelity Bank of New Smyrna, First National Bank of DeLand and First National Bank of Sanford. I have anything in the way of real estate that you might want. Don't hesitate to call on me by letter or wire. When in Florida look me up.

HARRY A. OSTEEEN,  
410 Canal Street, New Smyrna, Fla.

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The Finest Year 'Round Climate in the World—U. S. Weather Bureau; they now call FLORIDA the "Sun Porch of the Nation;" originally the name FLORIDA meant merely "The Land of Flowers," but nowadays it also means unlimited opportunity—Health, Comfort, Happiness, Wealth; no state income or inheritance taxes ever—the Playground of 'he Rich; the Paradise of the Poor. TAMPA is FLORIDA'S Largest City—State Census, 1925: special reduced rates on all railroads and steamship lines; send today for booklet and Fall list of Investments, Homes, Groves and Farms. Tampa-West Coast Realty Co. (Inc.), Opp. Post Office "Since Before the War," Tampa.

### FARM, FRUIT AND TRUCK LANDS

#### FLORIDA

CARR & CARR, INC.,  
Realtors,  
WEST PALM BEACH, PALM BEACH,  
LAKE WORTH.  
References—Any bank or trust company in Palm Beach County.

#### GEORGIA

FOR SALE—1350 acres, choice, fertile land, 14 miles of Americus, 3 miles railroad, town 1000; cleared; two 7-room residences, 15 tenant houses and other buildings, 350 bearing Pecan trees. If you would like a good farm in one of the best farming sections of the state, and at a bargain price, send for general description, etc.

P. B. WILLIFORD,  
Americus, Ga.

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The Mississippi Gulf Coast is one of the beauty spots of the earth. An ideal climate all the year round; truck farming is carried on throughout the winter months. In addition to that we have a splendid fruit country; we grow oranges, grapefruit, pecans, peaches, pears, figs, etc. It is also one of the healthiest places in the world and is building up rapidly. Write for illustrated booklet.

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#### NORTH CAROLINA

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BUSINESS PROPERTY that will pay a profitable income upon the principal invested in a town that is not dependent upon the tourist rush.

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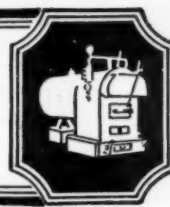


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20"x10" Bradford, standard change  
18"x10" Greaves-Klusman, quick change  
18"x8" Chard quick change, with taper  
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3x26 Jones & Lamson, flat head  
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28" Queen City, back geared crank, gear box drive, new  
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**CROSS COMPOUND CORLISS**  
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Above equipment located in Anniston, Alabama.

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- 1—500 H.P. NAGLE CORLISS Engine, twin cylinder, 36" leather belt and countershaft.
- 1—20"x24" INGERSOLL RAND COMPRESSOR.
- 18"x24" steam, complete with tank, piping, etc.
- 1—45 to 50 H.P. OTTO DIESEL ENGINE, like new, tank, compressor, etc.

**THE CABLE EXCAVATOR CO.**  
Fernwood, Del. Co., Pa.

### FOR SALE

2—No. 1 Anderson Expellers

### FOR EXTRACTING OIL

from Peanut, Soya Bean, Castor, Linseed, Coconut and other vegetable seeds.

Excellent condition.

Bargains.

**WALTER A. ZELNICKER SUPPLY CO.**  
511 Locust Street St. Louis, Mo.

### FOR SALE

- 1—Nash Hytor Model M Vacuum Heating Pump, direct connected; 1 H.P., A.C., 3 Phase, 60 Cycle Motor, used one winter.

**MR. HEIMER**

**BARRETT CRAVENS CO.**  
1328 W. Monroe St. CHICAGO, ILL.

We offer to the highest bidder the following machinery which must be disposed of at once.

- 1—Peck-Stow Wilcox Foot Power 30" Squaring Shears.
  - 1—5-ft. Cornice Brake with Wood Forms.
  - 1—Stiles and Parker No. 2 Foot Power Cutting Press with 1—10x14 Bolster Plate, 5x4 opening, 1—10x14 Bolster Plate, 5x8 opening, the bed of press has a 6x8 opening.
  - 1—Peck-Stow Wilcox 30" or 63 A Adjustable Bar Folder.
  - 1—36" Special Folding Machine manufactured by Valit & Co., Cincinnati, Ohio.
- If you are interested in purchasing any of this machinery please send in your bid, terms of payment, etc.

**GEO. H. BUCHHEIMER & SON**  
508-510 S. Ann St. Baltimore, Md.

### WANTED

### GENERATOR and TURBINE

Direct connected, 500 K. W., 440 volts, 60 cycles, 3 phase. Must be in good condition. Give price and description.

**MILLER MANUFACTURING COMPANY, Inc.**  
RICHMOND, VA.

### WANTED

### Generator and Engine

200 K. W. direct connected, 440 volts, 60 cycles, 3 phase. Give description and price.

Box 59

**SOUTH RICHMOND VIRGINIA**

## CORLISS ENGINE

18x42 Frick R. H., used only 30 days, guaranteed same as new, also have 16x42, 20x48 and 24x42 sizes in stock—slide valve and automatic engines. We will erect these anywhere. We repair, rebore, etc. Large shops, experienced mechanics.

**Hackley Morrison Co., Inc.**  
Richmond, Va.

### HENRY A. KRIES & SONS CO.

Steam and Mill Supplies, Pipe Fittings, Complete Power Plant Equipment, Manufacturers and Machinists, Refrigerating Engineers and Contractors.

6 and 8 W. Lombard St., BALTIMORE, MD.

### BOILERS

H.R.T. and Water Tube. Complete with fronts and all fittings. Large stock located in nearly every Southern state. We can save you 1/2 to 3/4 on insured boilers.

**W. M. SMITH & CO.**

Box 1709 Birmingham, Ala.

### WANTED

### USED TRANSITS AND LEVELS

HIGHEST CASH PRICES PAID

Also taken in trade for new Berger Instruments. Rebuilt instruments for sale. Ask for lists.

**NEW YORK BLUEPRINT PAPER CO.**  
Instrument Dept.  
No. 98 Reade Street NEW YORK, N. Y.

### MOTORS AND DYNAMOS

300 H.P. and smaller ready for immediate delivery

We do rewinding, etc.

**S. J. STEWART [ELECTRIC]**  
531 St. Joseph St. New Orleans, La.  
Established 1899

### BOILERS

#### FOR SALE

3—375 H.P., Class P, Stirling Boilers with superheaters. 180 lbs. pressure. Good condition.

**The Phosphate Mining Company**  
Nichols, Florida

### NO. 14 CYCLONE WELL DRILLING MACHINE

#### For Sale

With two strings of tools for 4 1/2", 6" or 8" holes. Almost new; must be sold to settle an estate. Come and look it over and make an offer. Hydraulic Pump and 6"x6" Curtis Air compressor attached.

**FIELD TURLINGTON**  
CHINCOTEAGUE VIRGINIA

### USED BOILERS

#### 1st Class Condition

2—264 H.P. B. & W. Water Tube, 150 lbs. with Combustion Eng. Co. stokers.

1—250 H. P. Altman & Taylor B. & W. type Water Tube 150 lbs.

1—250 H. P. Heinie Water Tube, 125 lbs.

1—235 H.P. Heinie Water Tube, 125 lbs. with oil burning equipment.

Also—H.R.T. Locomotive Economic and Vertical.

**HENRY A. HITNER'S SONS CO.**  
4501 Richmond St. Philadelphia, Penna.

We have on hand the following Machines For Sale, which have been Used Less than 90 Days

- 1—No. 1B Universal Turret Lathe, with oil pan and pump, Ser. No. 223, with direct belted motor drive, 5 H. P., Type Kt732-6-5-1800 G. E. A. C. motor, 220 V., 3 Ph., 60 cy., 1750 R. P. M. Mfd. by Foster Machine Co., Elkhart, Ind.
- 1—3-Spindle Hole Hog Horizontal Boring Machine, with 48"x35 1/4" table. Mfd. by Moline Tool Co., Moline, Ill. Ser. No. 2038.
- 1—Type 30 Vertical Multiple Spindle Drill, with 42 spindles, power feed to head, Ser. No. 30596. Mfd. by National Automatic Tool Co., Richmond, Ind.
- 1—No. 14 Vertical Multiple Spindle Drill, with 16 spindle power feed to head, Ser. No. 14479, with 30"x33" bed. Mfd. by National Automatic Tool Co., Richmond, Ind.

We are in the Market for the following Machines either New or Used in Good Condition

- 1—Thompson Electric Butt Welder for pipe colls., size 20-A-5; pipe sizes 3/4" to 2 1/2", Std. or 2" E. H.
- 1—Pipe Bending Machine, Wallace Mfg. Co., No. 5-B, for bending 180°; bends from 1" to 2" pipe, bends to be made range from 4 1/4" to 15" center to center of pipe. Complete with clamping devices with 5 H. P. 3 Ph. 220 volt motor.
- 1—300-Lb. Beaudry Power Hammer, motor driven, or equivalent.
- 1—48"x24" Double Back Geared Lathe, Pond or equivalent, motor driven.

**KRUEGER MACHINERY COMPANY**  
SAN ANTONIO, TEXAS



### ARCHER ARMSTRONG, INC.

4641 Grand Central Term Bldg., NEW YORK CITY  
Phones: Vanderbilt 3282-10408

#### AIR COMPRESSORS

- 4—210 ft. Chicago-Pneu. P2-DGL gasoline.
- 1—300 ft. Chicago-Pneu. NSBE with motor.
- 1—534 ft. Chicago-Pneu. NSBE with motor.
- 1—600 ft. Blaisdell with motor.
- 2—788 ft. Chicago-Pneu. OCBE with motor.
- 2—877 ft. Ing.-Rand CB-2 with motor.
- 1—877 ft. Ing.-Rand RB with motor.
- 3—1302 ft. Ing.-Rand PRE-2 dir. con. 2200-60-2 or 3.
- 2—2830 ft. Ing.-Rand PRE-2 dir. con. 4000-25-3.
- 1—2830 ft. Ing.-Rand PRE-2 dir. con. 2200-60-3.
- 2—5000 ft. Centrifugal compressors, 2.5 lb. pressure direct connected to 75 H.P. motor.

#### HOISTS

- 65 H.P. D.D. CLYDE with Sw., 220 volt D.C.
- 100 H.P. 8 D. CLYDE shaft hoist with motor.
- 200 H.P. D.D. OTTUMWA shaft hoist with motor.
- 5 and 8 ton Westinghouse-Baldwin trolley locomotives 220 volt D.C., 36 to 42 inch gauge.

### MOTORS (3 ph-60 cycle)

130 h.p. and 100 h.p. slip ring; 300 h.p. and 100 h.p. squirrel cage and fifty other sizes—big stock 220 Volt direct current motors, boilers, engines, turbines, condensers, generators, etc.

**HACKLEY MORRISON CO., INC.**  
Richmond, Va.

### AIR TOOLS

We have \$50,000.00 stock of "Thor," "Little David," "Little Giant," "Boyer" and "Keller" air motors, drills, hammers, etc. Also new parts for all standard makes of air tools.

We give manufacturer's guarantee and save you from 40 to 60 per cent.

**W. M. SMITH & CO.**  
P. O. Box 1709 Birmingham, Ala.

### WANTED

to buy an Open Type Water Heater, 400 to 500 Boiler H. P. capacity, any standard make, slightly used in A-1 condition.

#### COMMISSIONERS OF PUBLIC WORKS

ROBERT R. HALL, Supt.  
Summerville South Carolina

### ELECTRIC HOIST

With double tandem drums, 30x30 and 18x20, with 100 h.p. 3 ph., 60 cycle, slip ring motor. Large repair shops, storage, truckage, immense stock dependable used machinery.

**HACKLEY MORRISON CO., INC.**  
Richmond, Va.

### 25 TON ICE PLANT

Complete except cans or power  
**\$4500.00 EASY TERMS**

Distilled water  
Will change to raw water at same price  
**HERFURTH ENGINE & MACHINERY CO.**  
CAMDEN, S. C. KISSIMMEE, FLA.

### 10 TON ICE PLANT

Complete except cans or power.  
Wood tank holds 140 300-lb. cans.  
**\$3000.00 ON EASY TERMS**

With new raw water system  
**HERFURTH ENGINE & MACHINERY CO.**  
CAMDEN, S. C. KISSIMMEE, FLA.

### ICE CANS

LOT NEW 300 lb. SIZE

Terms if desired  
**HERFURTH ENGINE & MACHINERY CO.**  
CAMDEN, S. C. KISSIMMEE, FLA.

### RADIATORS

Carload used, tested, guaranteed steam radiators—substantial saving—Will contract to install heating plant in factory requiring them.

**HACKLEY MORRISON CO., INC.**  
Richmond, Va.

## BOILERS

- 6—400 H.P. Wickes Vertical Water Tube Boilers, 175 lbs. pressure. Murphy Stokers, 48-in.x90-ft. Steel Stacks. All accessories.
- 2—300 H.P. Vogt Water Tube Boilers, 125 lbs. pressure.
- 2—300 H.P. Heine Water Tube Boilers, 160 lbs. pressure.
- 10—823 H.P. Babcock & Wilcox Stirling Water Tube Boilers, Class M-30, 200 lbs. pressure. Westinghouse Stokers, forced draft Fans. Vulcan Soot Blowers and all accessories.

### NASHVILLE INDUSTRIAL CORPORATION

Old Hickory, Tennessee

### PUMPS FOR SALE

- 3—14"x22"x24" Blake-Knowles Single Horizontal Steam Driven, Steam Heating Vacuum Pumps, 10" suction, 8" discharge.
- 2—14"x12"x12" Worthington Duplex Pressure Pumps, 10" suction, 8" discharge.
- 2—14"x10-1/4"x12" Worthington Duplex Boiler Feed Pumps, 6" suction, 7" discharge.
- The above seven pumps set up but never used.
- 3—16"x9"x12" Worthington Duplex 750 gallons Underwriters Fire Pumps, 3" steam, 4" exhaust, 9" suction, 6" discharge.
- 1—16"x8"x12" Gardner Duplex Brass Fitted Fire Pump, 8" suction, 6" discharge, fitted with 2 hose connections.
- 3—10"x6"x10" Blake-Knowles Duplex Boiler Feed Pumps, brass fitted.
- 1—8"x5"x6" Fairbanks-Morse outside center packed Duplex Boiler Feed Pump, brass fitted, 4" suction, 3" discharge.
- 2—Worthington C.L.C.-4 Volute Centrifugal Pumps, 5" suction, 4" discharge, with shaft and coupling.

**JOHN D. WESTBROOK, Inc.**  
NORFOLK, VA.

### COTTON DRYING APPARATUS

- 10—No. 24 Six-section 8" Sargent Dryers.
- 10—48" Sargent Mixing Pickers.
- 10—Sargent Cotton Washers or Rinsers.
- 10—Sargent 48" Model "M" Feeders.
- 6—Noble & Wood Concentrators, 44"x42".

Write for descriptions of this equipment.  
**NASHVILLE INDUSTRIAL CORPORATION**  
Old Hickory, Tennessee

### OIL ENGINES

FOR SALE

- 1—McIntock & Seymour, 200 H.P., Type 4-3-24 Heavy Duty Diesel.
- 1—Venn Severin, 125 H.P. Type KX.

Have been in use twelve and eighteen months respectively. Excellent condition.

Both now in operation on belt drives and may be inspected at plant near Brooksville, Fla. Will be released for delivery October 1st, 1925.

**FLORIDA ROCK PRODUCTS CO.**  
816 1/2 Franklin St. Tampa, Fla.

### NEW WIRE ROPE

300,000 feet new plow steel and crucible cast steel hoisting rope, also galvanized hoisting and guy rope, sizes from 1/4" to 1 1/4" diam.

10,000 new wire rope and manila rope blocks, single, double and triple. Prices considerably under the market.

Write for bulletin with full particulars.

**MARINE METAL & SUPPLY CO.**  
167 South Street New York City

### FOR SALE

FOUR STURTEVANT RING ROLL MILLS

For further particulars address  
**NATIONAL CEMENT CO.**  
Ragland, Ala.

### Machine Tools

Power Equipment Boilers  
Electric Motors

**DELTA EQUIPMENT CO.**  
148 N. 3rd St. PHILADELPHIA

## CAST IRON PIPE

40,000 Ft. 4" Universal Cast-Iron Pipe, 6' lengths, location New Jersey.  
1,000 Ft. 6" Universal Cast-Iron Pipe, 6' lengths, location New Jersey.  
3,400 Ft. 10" B&S Class "C" Cast-Iron Pipe, 12' lengths, location Central Pennsylvania.  
2,000 Ft. 8" Class "D" B&S Cast-Iron Pipe.  
600 Ft. 12" Class "D" B&S Cast-Iron Pipe.  
400 Ft. 14" Class "D" B&S Cast-Iron Pipe.  
1,100 Ft. 16" Class "D" B&S Cast-Iron Pipe.  
1,300 Ft. 18" Class "D" B&S Cast-Iron Pipe.  
1,000 Ft. 20" Class "D" B&S Cast-Iron Pipe.  
Location of this pipe is Western Penna.  
1,500 Ft. 36" Class "B" B&S Cast-Iron Pipe, never used, located Central Pennsylvania.

All of this pipe is as good as new for all practical purposes, having only been installed for a short time. Will quote you bargain prices. Let me have your inquiries.

**Edward W. Peters Danville, Penna.**

## PIPE

Rethreaded, reconditioned, guaranteed, suitable for all practical purposes, furnished with new threads and couplings.

400,000 feet in all sizes from 24" to 3/4".

Also large stock of spiral pipe sizes 7", 10", 12", 14", 20", and 24".

Large stock of valves and fittings, screwed and flanged. Can make attractive prices.

### MARINE METAL & SUPPLY CO.

167 South St., New York City

Established 1904

## PIPE

Large Stock, All Sizes  
Threaded and Coupled  
Mill Lengths

### Albert & Davidson Pipe Corp.

256-264 Oakland St., Brooklyn, N. Y.

### Second Hand Wrought Iron PIPE

Overhauled  
Rethreaded  
and Coupled

Also Cut to Sketch

**Greenpoint Iron & Pipe Co., Inc.**  
330-332 Graham Ave. Brooklyn, N. Y.

### STEAM PUMP

FOR SALE

1—4000-5600 G.P.M. Horizontal, crank and fly-wheel type, cross compound, condensing Eppinger-Carpenter Steam Pump. 150 lbs. water pressure. 140 lbs. steam pressure. Practically new.

**The Phosphate Mining Company**  
Nichols, Florida

### IRON AND STEEL PIPE

Large quantity pipe, all sizes 1/2" to 36", with threads and couplings.

Let us have your inquiry.

**CENTRAL PIPE & SUPPLY CO.**  
Box 1099 Charleston, W. Va.

### WANTED TO BUY

Pipe in Carload Lots—1" to 12".

#### FOR SALE

5000 New 4" Long Drill Pipe Couplings, \$2.15 ea.; 2000 3" Drill Pipe Couplings, \$1.50 ea.; 2000 4" Line Pipe Couplings, 85c ea.; 1000 8" Line Pipe Couplings, \$1.75 ea.; 500 12" Line Pipe Couplings, \$2.50 ea.

**Brooks Supply Co.** Beaumont, Texas

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# SALE OF NAVY SURPLUS AND SURVEYED MATERIAL BY PUBLIC AUCTION

AT THE  
NAVY YARD  
AT  
10 A. M. (Eastern Standard Time) NOVEMBER 17, 1925  
PHILADELPHIA, PA.

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## The following material will be offered:

2,180,000 lbs. (approx) Ferrous Metals  
195,000 lbs. (approx) Non-ferrous metals  
218,000 lbs. (approx) Battery lead and 12,000  
lbs. (approx) Lead scrap  
164,000 ft. (approx) Silicon bronze wire rope  
170 each Coffee urns, aluminum, 20 gallon  
capacity

1,570 each Chests and ditty boxes  
16 each Buildings  
17 each Small boats and Hulls and 19 Life  
rafts, 20 person capacity  
1 Diesel engine, parts missing, estimated  
weight 30,000 pounds

## ALSO

Large quantities of small tools and hardware; large quantities of boat and ship fitting; bathroom and toilet supplies and fittings; gaskets and packing machinery; electrical material; galley and hospital equipment; office appliances; musical instruments, and miscellaneous aeronautical material, including 43 parachutes, 6 Hispano "H" engines, 14 liberty crank cases and instruments.

## ALSO MANY OTHER ITEMS

The auctioneer for this sale will be Eichberg, Rolfes and Company, 435 Star Building, Washington, D. C.  
Catalog 594-A contains all available details of description, Terms of Sale, etc., and may be obtained from the Supply Officer, Navy Yard, Philadelphia, Pa., or the

**CENTRAL SALES OFFICE**  
NAVY YARD :: WASHINGTON, D. C.

## ALBERT PIPE SUPPLY CO. INCORPORATED



NEW AND USED

New Threads - **PIPE** - New Couplings

ALL SIZES CUT TO SKETCH

Berry & North 13th Sts., BROOKLYN, N. Y.

## PIPE— FOR SALE

from 1/2 inch up to 30 inches

Furnished plain ends or threaded.

All sizes bought and sold.

What are you in the market for?

What have you for sale?

Pipe for every purpose

**PIPE & CONTRACTORS SUPPLY CO.**

188-198 East 135th Street

Bronx, New York

## IF ITS NEW PIPE OR SECOND HAND

black or galvanized up to 12"—we have it. Cut and threaded to any length.  
**SPECIAL:** a carload of 3" or 4". Cheap at any time, rethreaded and coupled.

Your inquiry means—Another satisfied customer.

**HUDSON PIPE AND SUPPLY COMPANY**  
34th Street and C. R. R. of N. J. Bayonne, N. J.

NEW AND SECOND-HAND

## MACHINE TOOLS

HENRY PRENTISS & CO.

Incorporated

149 Broadway

New York, N. Y.

Warehouse: Jersey City

## IDLE MACHINERY

cannot be disposed of if no one knows  
you have it to sell.

Advertise it in the

**MANUFACTURERS RECORD**

## MACHINERY

When in the market for new or  
used machine shop—boiler shop  
—pipe shop equipment—or gen-  
eral machinery—think of

**"O'BRIEN" PHILADELPHIA**

**THE O'BRIEN MACHINERY CO.**

113 N. Third Street

Philadelphia, Pa.

Long Distance Telephone:—Market 0727

Cable Address—OBRIEN, Philadelphia





## RAILROAD AND CONTRACTORS' EQUIPMENT



### FOR SALE

- 2—Davenport 36" gauge saddle tank locomotives, weight 18 tons each.
- 1—Erie type "A" shovel, 1/2-yd. caterpillars.
- 1—Browning standard gauge locomotive crane, capacity 20 tons.
- 1—Standard American R. R. type ditcher.
- 1—Standard gauge Vulcan saddle tank locomotive, 25 tons.
- 1—Erie type "B" shovel, 3/4-yd. caterpillars.
- 10—Western 4 yard 36" gauge dump cars, steel beams.

**ATLANTA LOCOMOTIVE & EQUIPMENT CO.**  
ATLANTA, GEORGIA

### RELAYING RAIL

- 5 Miles 30-lb.
- 10 Miles 40-lb.
- 5 Miles 50-lb.
- 10 Miles 60-lb.
- 20 Miles 70-lb.
- 5 Miles 75-lb.
- 3 Miles 90-lb.

Also other sections for southern delivery.

**WELLER & COMPANY**

NEW AND RELAYING RAIL  
BIRMINGHAM ALABAMA

- 40 Standard and 36" Gauge Modern Direct-connected Locomotives, in all types and weights from 8 to 75 tons.
- 10 Standard and 36" Gauge Geared Locomotives, all weights.
- 15 Steam Shovels and Locomotive Cranes of different types and sizes.
- 8000 tons Relaying Rails, all sizes, on our Birmingham yards.
- 100 sets 35 and 40-lb. Frogs and Switches; good as new.

Many other articles in this line.  
Your inquiries will receive careful and prompt attention.  
**BIRMINGHAM RAIL & LOCOMOTIVE CO.**  
BIRMINGHAM, ALA.

### Rails—Frogs—Valves

2000 Tons 67 1/2 Pound Russian Rail Good as new.

100 ton track scale

Frogs—Switches—Guard Rails—Tie Plates

From 4 to 12-inch cast iron valves and 4-inch Ludlow fire hydrants.  
**VIRGINIA IRON & METAL CO., Inc., Richmond, Va.**

### We can furnish all kinds of CONTRACTORS EQUIPMENT

Tell Us What You Want

**T. J. LANE EQUIPMENT CO.**  
1024 W. Main St. Springfield, Ohio

### FOR SALE

- LOCOMOTIVES—10 to 70 ton, both standard and narrow gauge.
- LOGGING CARS—both flat and skeleton type, standard and narrow gauge.
- RELAYING RAIL—all sizes from 20 to 60 pound.

Prompt shipment. Low prices.  
**JOHN D. WESTBROOK, INC.**  
Norfolk, Va.

### CRANES

- 1—Type "B"—ERIE Traction Wheels, 32 ft. Boom, 3/4-yd. Clamshell Bucket.
- 1—No. 205 P. & H. Half Caterpillar Traction, 30 ft. Boom, 1/2-yd. Clamshell Bucket.

Above for Southern delivery.  
**CHESTER COULTER**  
1021 Healey Building Atlanta, Ga.

### LOCOMOTIVE

15 ton, 10x16, Baldwin 36 gauge, saddle tank special bargain—Large stocks used equipment—Storage trackage, repair shops.

**HACKLEY MORRISON CO., INC.**  
Richmond, Va.

### BROWNING CRANE

- 1—No. 8, 25-ton capacity, 50-ft. boom. Mounted on 8 wheels, double drums, A.S.M.E. boiler. Complete with clamshell bucket. Good condition. Philadelphia.

Also other good cranes—inquire

**PHILIP T. KING**  
"The Crane Man"  
50 Church Street New York

### STEAM LOCOMOTIVES, NEW

gauges 30", 36", 42" and standard (4' 8 1/4") or any intermediate gauge. Coal, oil or wood burning. Prompt shipment. Many satisfied users.

MOST ATTRACTIVE PRICES  
**R. POLIAKOFF** 709 Sixth Avenue, New York, U. S. A.

### FOR SALE LOCOMOTIVE

- 1—40-ton, standard gauge Baldwin locomotive—2-6-2 Prairie type, 16x22 cylinders—attractive price—immediate delivery.

Address A-358  
Care of Manufacturers Record Baltimore, Md.

### PAVING MIXERS Smith — Koehring — Austin

At attractive prices

**Henry Levis & Co.**  
Commercial Trust Bldg. Philadelphia

### HOISTING ENGINES

- 1—Mundy Hoisting Engine, dbl. cyl. dbl. drum 7 1/2"x10" with boiler.....\$900.00
- 1—Lambert Hoisting Engine, dbl. cyl. dbl. drum, 7 1/2"x10" with extra shaft in front of drums with 2 niggerheads (clutched) having base for boiler but without boiler.....\$650.00
- 1—Lidgerwood Hoisting Engine, dbl. cyl. dbl. drum, 2 niggerheads 6 1/2"x8" equipped with ASME boiler.....\$850.00
- 1—Mundy Hoisting Engine, dbl. cyl., dbl. drum, 2 niggerheads, 5 1/2"x10" equipped with boiler.....\$750.00
- 1—National Hoisting Engine, dbl. cyl., dbl. drum, 2 niggerheads, 5 1/2"x10" with 34"x7" boiler.....\$750.00
- 1—Mundy Hoisting Engine, dbl. cyl., dbl. drum 7 1/2"x10" with boiler.....\$900.00

Send for catalog giving complete list of other equipment for sale.

**HENRY A. HITNER'S SONS CO.**  
4501 Richmond St. Philadelphia, Pa.

### FOR SALE OR RENT LOCOMOTIVE CRANES

- 1—Browning, 21 ton, 8 wheel, 50' boom—used only one month.
- 1—McMyler, 30 ton, 8 wheel, 75' boom—overhauled.
- 1—McMyler, 15 ton, 8 wheel, 50' boom—first class.
- 1—Industrial, 10 ton, 4 wheel, 38' boom—overhauled.
- 1—Ryers Crane, 19' gauge.
- 1—Peerless Crane, 14' gauge.

### STEAM SHOVELS

- 1—Type "B," Erie on caterpillar.
- 1—Type "B," Erie, with crane attachment on caterpillar.
- 1—14B, Bucyrus on caterpillars.
- 1—18 Osgood on caterpillars.
- 1—Model 20 Marion, PB trucks.

### CLAMSHELL BUCKETS

- 4—New Power Wheel, Blaw-Knox, 3/4 yard.
- 1—New Bull Dog, Blaw-Knox, 3/4 yard.
- 1—1-yard Williams.

### LOCOMOTIVES and TRACK

- 3—7 ton, 24" gauge, Whitcomb gasoline.
- 3—10x16—4 wheel Saddle Tank Porter.
- 2—9x14—4 wheel Saddle Tank Vulcan.
- 3 mile 24" gauge Industrial Track.

Hoisting Engines, Derricks, Road Rollers, Concrete Mixers, Batch Boxes, 24 and 36" gauge; Cars, Pumps, Grout Machines and Concrete Chute.

Everything for the Contractor and Road Builder.

**PITTSBURGH MACHINERY AND EQUIPMENT CO.**  
1302 Fulton Building Pittsburgh, Pa.

### For Sale — STEAM SHOVEL OIL ENGINE

- 1—Marion, Model 31, caterpillar, 1 yd. bucket.

1—60 H. P. De La Vergne, Type "DH". Both in good condition and can be inspected in operation. For full particulars address  
**ALBION KAOLIN COMPANY**  
Hephzibah Georgia

### CARS

5 each 3 and 4 yd., 36" gauge, side dump, K & J, rebuilt. 20 sets truck std. gauge, practically new, for ten ton industrial flats or box cars. Seven std. gauge trailer cars. We repair cars, locomotives, etc.

**HACKLEY MORRISON CO., INC.**  
Richmond, Va.

### FOR SALE

Model 3 Keystone Traction Excavator Half-Yard Skimmer Scoop.

**THE NILES BRICK COMPANY**  
NILES, OHIO

### GEORGIA CAR & LOCOMOTIVE COMPANY

Offices and Works, Atlanta, Georgia

REBUILT RAILROAD EQUIPMENT

Locomotives—Cars—Coaches  
Standard Trucks for Logging

REPAIR PARTS for CARS and LOCOMOTIVES

## RAILS AND ACCESSORIES

Frogs  
and  
Switches  
Steel Mine  
Ties



Portable  
Track  
New  
and  
Relaying

Manufactured by  
**The WEST VIRGINIA RAIL CO.** Huntington, W. Va.

## REBUILT EQUIPMENT

LOCOMOTIVES      STEAM SHOVELS  
CRANES, CARS, COACHES, RAIL, ETC.

LARGE ASSORTMENT IN STOCK  
COMPLETELY REBUILT IN OUR OWN SHOPS

### SOUTHERN IRON & EQUIPMENT CO.

EST. 1889

ATLANTA                      GEORGIA



## Why Risk the Lives of Others

by using inferior track equipment? When you order "CINCINNATI" you are insured against breakdown and delay.

You need not fear accidents and delay due to derailments.

Day after day "CINCINNATI" functions regularly. It is designed and constructed that way.

**The "Cincinnati" Frog & Switch Co.**

Cincinnati, Ohio

Established 1906

#### Representatives:

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T. H. Edelblute Co., 302 Wabash Bldg., Pittsburgh, Pa.  
Mr. F. K. Holmestead, Charleston, W. Va.  
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### Relaying Rails

100 tons 25 lb. No. 1 Relaying Rail with splices.  
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Old Hickory, Tennessee

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We offer for immediate delivery—

4—21-E MultiFoote Pavers, steam driven, equipped with bucket and boom and batch meter.

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These pavers have been reconditioned, and are in excellent operating condition and are offered subject to inspection, at sacrifice prices in order to move them quick.

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Boxes, Gondolas and Flat Cars

40-ton capacity. Built by American Car & Foundry Co. in 1912. All uniform construction—Fish-belly type underframe—Arch-bar trucks—Farlow draft gear. Low price for quick movement. Photos and specifications on demand.

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Frogs and Switches, Bolts, Spikes, Tie Plates.  
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New Frogs and Switches at low prices.

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COMMERCIAL TRUST BUILDING  
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FOR SALE OR RENT

1—20-ton, 8-wheel, OHIO, Type "CD" Locomotive Crane, Shop No. 3631, new May, 1924. A. S. M. E. and Mass. boiler, 50 ft. boom; Bucket operating; used 4 months, like new.

1—20-ton, 8-wheel INDUSTRIAL, Type "G" Locomotive Crane, Shop No. 3614, new 1918. A. S. M. E. Boiler, 50 ft. boom; double drums, 1½-yd. Hayward clamshell Bucket; used one year; excellent condition.

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1—Type B ERIE, full revolving, Shop No. 2066, new 1923. ALL-STEEL CATERPILLARS. A. S. M. E. Boiler, ¾-yd. dipper; HIGH LIFT BOOM and DIPPER HANDLE, in first-class condition.

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36—4-yd., 36" gauge, WESTERN, Two-way side Dump, new 1923, Heavy Duty, 4-pedestal, STEEL DRAFT BEAMS, Box Girder Type Doors, overhauled, like new.

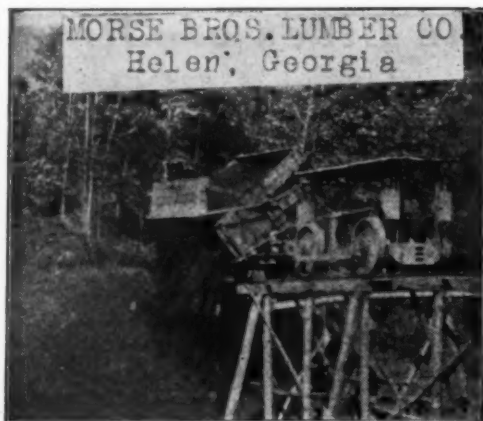
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Reduce your haulage cost with the  
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3½ Ton Locomotive . . . . . \$1375.00  
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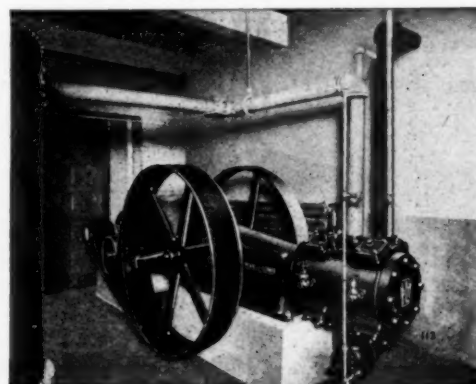
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Manufactured by

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PENNSYLVANIA Air Compressors represent the highest development in this class of equipment. Well designed and well built throughout; distinctive in appearance; containing many exclusive features; they stand up under the most exacting service conditions and may be depended upon to meet every requirement. When you buy a PENNSYLVANIA Air Compressor you buy the best design, materials and construction it is possible to build into a compressor.

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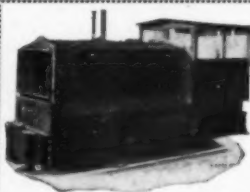
Firmly established upon the foundation of the greatest man-power, stability and simplicity. Carried in stock by Jobbers throughout the world.

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For Industrial Haulage

Built in various sizes from 4 to 18 tons. For all gauges.

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### Climax Walschaert Valve Gear Locomotive

The improved Climax locomotive, with Piston Valve and Walschaert Gear, gives greater economy in fuel and water, and more efficiency in service. The engine being evenly balanced, with uniform distribution of power to all wheels, enables it to work on sharper curves and steeper grades with less flange wear on tires and rail resistance.

If interested in  
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# Plymouth Saves \$100 a Month



## MERRIMAC CHEMICAL COMPANY

THE RUSSELL CO., GENERAL MANAGERS

MAIN OFFICE  
BOSTON, MASS.

EVERETT, MASS., Sep. 26, 1924

The Fate-Root-Heath Co.,  
Plymouth, Ohio.  
Gentlemen:

We are pleased to say that the Plymouth 8-ton Gasoline Locomotive purchased from you a few months ago is giving us very satisfactory service. Previous to receiving this machine, we used a steam locomotive of the saddle back type and our direct savings with the gasoline machine are somewhat over \$100 per month.

Our gasoline consumption is very close to one gallon per hour of operation, which consists of an average length haul of approximately a quarter mile on about level track. The load is usually one, and sometimes two and three, box cars with 20 to 30 tons of material in each. Between fifteen and twenty shifts are made during the nine hour operating day.

Very truly yours,  
MERRIMAC CHEMICAL CO.  
(Signed) By J. B. Rutter,  
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*Plymouths are made in 3 to 20 ton sizes, and in any track gauge, to meet every condition.*

Production by modern methods demands rapid, economical haulage.

Profits are made by hauling the most material in the least time for the least money.

That's why Plymouth Gasoline Locomotives are profit earners.

They pick up big loads and hurry.

They cost less for fuel, less to operate and less to maintain.

They are always ready, no coal or water to haul, no "firing up," no boiler troubles, no "stand by" expense.

No matter what the enterprise or industry if haulage is a problem the Plymouth is the solution.

Write for literature.

## THE FATE-ROOT-HEATH COMPANY

*Plymouth Locomotive Works*

PLYMOUTH, OHIO

# PLYMOUTH

## *Gasoline Locomotives*





"O & S" 35 hp.  
Gasoline Hoist on  
the job in Chicago

## "The Friction Arrangement is what I like about this hoist"

"That's what makes it so easy to handle....I never have any screw and pin trouble, either—which is more than I can say for other hoists I've run."

Many operators of "O & S" Gasoline Hoists say that. The double V type friction which the *improved thrust device* is responsible for this easy, trouble-proof operation. A very small movement of the thrust lever engages the drum with the friction surface—a slight pressure on the lever holds the drum in gear against any load the engine will handle. The thrust screw doesn't bear directly on the friction pin. The thrust is distributed over a diameter of  $2\frac{1}{4}$  in. instead of  $\frac{3}{4}$  in. The engaging surfaces run in oil. This friction arrangement was originated by us.

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Please send me your Bulletins on (check the ones you want)

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### Electric Steam Gasoline HOISTS



SIX Lidgerwood Derrick Hoists used in erection of the L. S. Plaut & Co. Bldg., Newark, N. J. by Spencer, White & Prentice Co.

Every Lidgerwood Hoist meets the most exacting demands of contracting work.

HOISTS—CABLEWAYS—DERRICKS

**LIDGERWOOD MANUFACTURING CO.**

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Outer ring will wear 15 to 20 years and will not break.

All insulation is of impregnated, waterproofed asbestos which is not affected by age or heat.

Ask for Bulletin No. 106

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CLEVELAND, OHIO

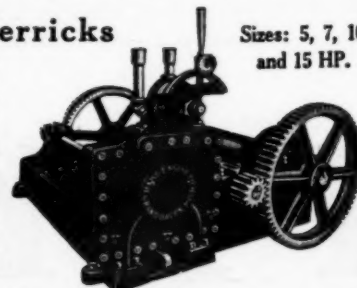
## DAKE SWINGING ENGINES

FOR

### Bull-wheel Derricks

Sizes: 5, 7, 10  
and 15 HP.

speed up the swing time of the boom. Start the boom with a smooth, rapid movement as soon as the load is clear, no jerks, no clutches, no trouble. The DAKE Reversing Engine has no dead centers but starts, stops and reverses instantly, so that the load is always under perfect control of the operator.



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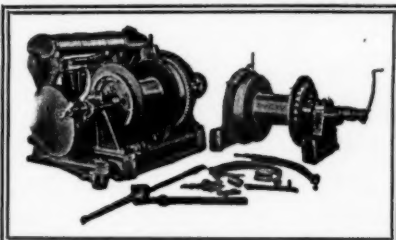
*It writes  
its own  
story.*

**With the CENTER DRIVE Truck**

THE THEW SHOVEL CO., LORAIN, OHIO

**Thew Lorain Shovels**

**BUILDERS AND CONTRACTORS!**



**FLORY  
GASOLINE  
HOIST  
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—a good portable hoist that will "stand the gaff." 20 H.P. and lifts 4000 pounds at 125 feet per minute. Unexcelled for skidding and lumbering. Flory also makes Electric and Steam Hoists, Cableways and Dredging Machinery.



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Wire Rope Blocks,  
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# TURBINAIR



## Save Man Power in Lifting and Hauling

Have you ever counted the times-a-day your foreman shouts, "Hey, give's a hand, you three—four guys, t' lift out this block"—or to snake a stone boat where the derrick won't reach, or to shove a car down the track—

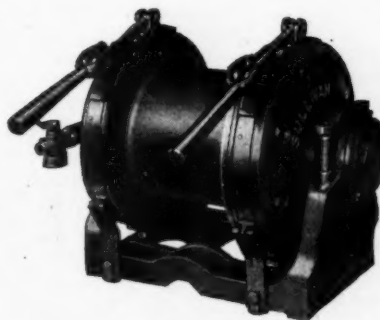
Only a few minutes, but it takes your men from their jobs.

A SULLIVAN TURBINAIR HOIST will do that odd-job hauling and hoisting a lot quicker than a gang of men, and save their time, too.

It weighs 345 lbs., lifts a ton on single line, and uses only as much air as a Rotator Drill. Handles 350 feet of  $\frac{3}{8}$ -in. wire rope. Try one mounted on your derrick.

There are Electric Hoists, too, same size, and both air and electric come in two-drum types as well as single.

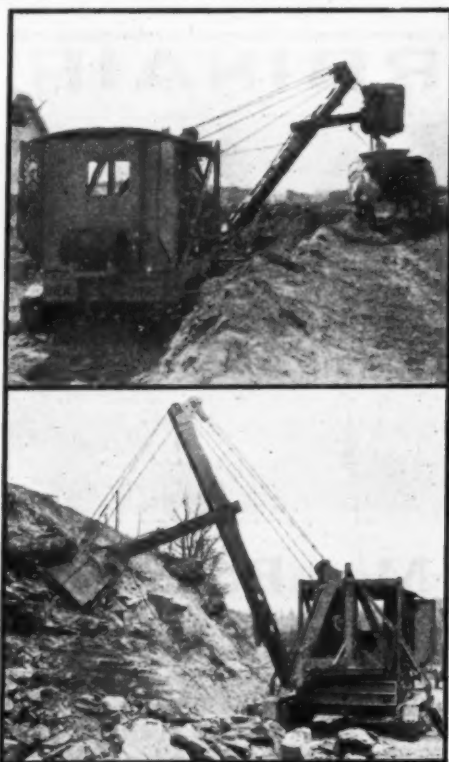
*Air Hoists, Bulletin 1276-F*  
*Electric Hoists, Bulletin 1276-E*



Sullivan Turbinair Hoist

**SULLIVAN**  
TRADE MARK  
**MACHINERY COMPANY**  
122 S. Michigan Ave. Chicago





Photographs of Mr. Wilson's machine were not obtainable; it is exactly the same as the two machines illustrated above.

## Digging Clay and Decomposed Granite

"SOME time ago, I bought one of your Bear Cat Cranes with shovel attachment. I used this shovel for digging clay and decomposed granite; this material we used for road surfacing.

"The ground was hard and in preparing for this job I expected to do considerable of shooting, so we had drills and powder on the job, but after the shovel arrived, they were excess baggage.

"The second pit was decomposed granite. I was skeptical as to our handling it without powder, but we worked here two weeks at 250 yards per day without the use of powder.

"This work was done on Division 9 of California State Highway between Mojave and Ludlow.

"I cannot praise the economy and dependability of shovel and motor too highly. It proved to be there on all occasions."

Yours truly, (Signed) HARRY WILSON

Keeler, Calif., Sept. 21, 1925.

Now write and ask us what this  $\frac{1}{2}$  yard gas or electric shovel costs, and the operating expense, with only one man's wages to pay.

THE BYERS MACHINE CO., Ravenna, Ohio

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THE ALL-PURPOSE  
ONE-MAN CRANE

## PARSONS Trench Excavators and Backfillers



Handle More Dirt per Dollar

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New York Office—501 FIFTH AVENUE

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Performance  
Facts

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Hammer Drills and Piston Drills

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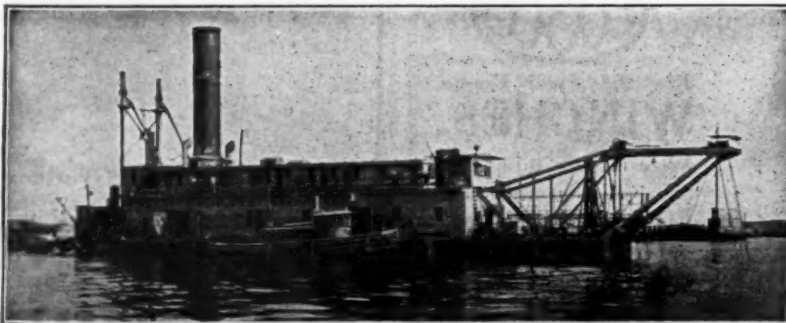
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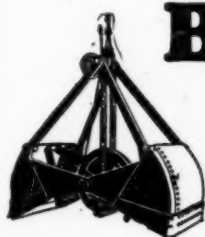
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*Excavating  
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Orange Peel*

Locomotive Cranes - Steam Shovels  
Crawler Cranes - Gasoline Shovels

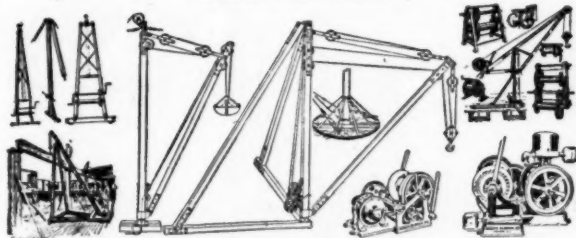
**THE McMYLER-INTERSTATE CO.**  
CLEVELAND, OHIO

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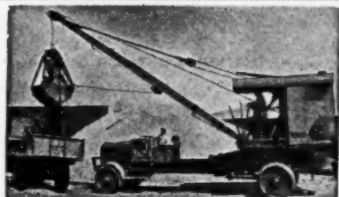
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Our Derricks Are Built Of Best Crucible Steel And Malleable  
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**Universal**  
MOTOR TRUCK MOUNTED  
Cranes

Send for Bul. No. 201-K2

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Terry Derrick Fittings for  
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Straight Lengths or Coils  
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All Finishes

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Roebling's  
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Makers of  
Wire Rope  
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## Bigger Bucket-loads with an O-S Clamshell

You are sure of a bucketful every time with an O-S Clamshell because it has weight enough to bury itself in the material; spread enough to collect a bucket-load; speed enough to insure at least 3 trips a minute.

O-S Buckets, like O-S Cranes, are built with emphasis on dependability. Entire bucket of steel; Alemite Pressure System to permit correct lubrication; Manganese steel on the digging lips—where it is needed; all parts amply riveted; large protected sheaves—easy on cable.

That's what you get when you invest in an Orton Bucket—plus engineering design perfected through 15 years of Bucket building.

Why not an O-S for your crane?  
Send now for Catalog 25—it contains description, illustrations and prices.



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**ORTON**  
& STEINBRENNER CO.

608 S. DEARBORN ST.  
CHICAGO, ILL.



# Hayward Buckets



**I**N the construction of the Castleton Cut-off on the New York Central, skillful engineering and the practical application of reliable equipment overcame many difficult problems.

Hayward Orange Peel and Clam Shell Buckets had an active part in this huge operation of the Walsh Construction Company. They were used for digging and rehandling bulk materials in building both the A. H. Smith Memorial Bridge and the large classification yards at Selkirk.

This is but another leaf from the record of history making achievements which Haywards have helped construct. Hayward Engineers will gladly show how Hayward Buckets save time, money and labor on operations of every character involving the digging or rehandling of bulk materials. No cost or the slightest obligation for this service.

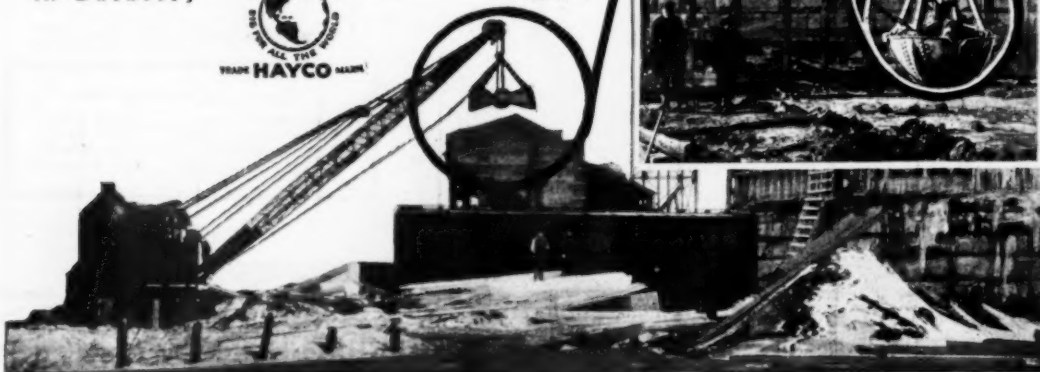
**THE HAYWARD COMPANY**  
50-52 Church St. New York, N. Y.

Builders of Clam Shell, Orange Peel, Drag Line, and Electric Motor Buckets;



Dredging, Excavating, and Coal Handling Machinery.

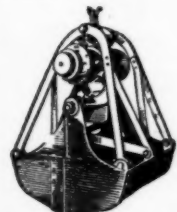
3187-Y



Clam Shell Buckets



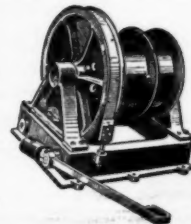
Orange Peel Buckets



Electric Motor Buckets



Drag Scraper Buckets



Counterweight Drums



Skid Excavators and Dredges

# A MOUTHFUL at EVERY BITE

## Guarantee

Owen Buckets, properly installed and operated, are guaranteed to do a bigger day's work than any other bucket of the same weight and capacity—

—or—

Write your own guarantee!

THE OWEN BUCKET CO.

The sharp, cruel strength of the gorilla's massive jaws gain for him a mouthful at every bite. This giant of Africa's ape family tears away his heaping bite with a powerful force that parallels the action of an Owen Bucket.

When an Owen Bucket strikes the material, the centralized weight enables the teeth or edges to get a starting hold. As the closing line is overhauled the bucket cannot rise before digging in for a chuck-full load.

An Owen Bucket is designed and constructed to absorb without effect the knocks, and racks, and falls, and all of the abuse that shortens the life and earning power of the ordinary bucket.

Just as the gorilla is the "tree-top" king of the jungle—so is the Owen the "dig-in" king of buckets.

Write for the complete story of Owen Buckets and their nine distinctive points of superior construction.

## The OWEN BUCKET Co.

1103 Rockefeller Building

Cleveland, Ohio

Baltimore Chicago Dallas Los Angeles Minneapolis Philadelphia  
Pittsburgh New York Miami Portland St. Louis San Francisco



# Owen Buckets

## INSURE A BIGGER DAY'S WORK

© O.B.C.

Four 1 yard Type "J" Digging Buckets used by Geo. H. Fuller Co., to dig Footings for foundation for Brotherhood of Locomotive Engineers Bank Building.





## The Monighan 4-T Monster Walking Dragline

*As Big and Powerful As They Make 'Em*

The Monighan Dragline illustrated above is one of the 4-T Monster models. It is walking aboard a Mississippi River barge at St. Louis, Missouri, for a trip down the river. At its destination it will walk off the barge again and start a large Mississippi River levee job for the United States Government.

This Monster Excavator has as standard equipment a 4-cu. yd. bucket on a 100-ft. boom. It can also be built with a 5-cu. yd. bucket on an 80-ft. boom, or a 3-cu. yd. bucket on a 120-ft. boom. With these large bucket capacities and long reach and with its exclusive *sidestepping* advantages, this dragline is able to handle most any of the big jobs.

And in every detail, the machine is in keeping with its size and capacity. The base on which it stands when digging is practically 25 ft. in diameter and each walking platform is 5 ft. wide by 31 ft. 3 in. long. The power is furnished by a 180-hp. Diesel engine.

When a dragline job calls for big capacity, high speed, dependable equipment, and low operating and maintenance costs, the Monighan 4-T Walker will exactly fill the bill.

*Complete specifications on request.*



Augusta Street and Kilpatrick Avenue, Chicago



1—Up a 15% grade, digging at the rate of 10 lineal feet per minute. Boom holds to line and grade. Notice what an easy job the operator has, in spite of the grade and the high digging speed.

2—Some more 10 foot per minute digging on a Texas pipe line job. Even at this high digging speed the Barber-Greene is easy to hold to line.



Tear this out and send for the paper "The use of Small Trenching Machines," delivered by A. G. Ford of the Western United Gas & Electric Light Co., before the 21st convention of the Illinois Gas Assn.

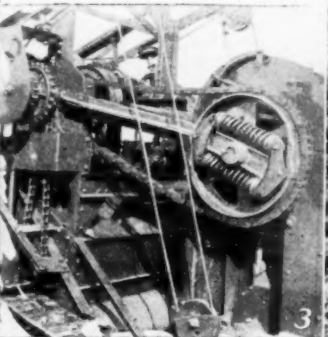
Name.....

Address.....

City.....

State.....

3—This overload release sprocket guards the Barber-Greene from the shocks of hitting underground obstructions and makes the machine as careful as human hands in digging around buried pipe. It functions absolutely automatically.



4—Here's a picture showing why the Barber-Greene made good in Texas. Cutting through Texas Gumbo and dodging telephone poles at the same time.

5—A close-up of the Barber-Greene slipping past a pole. Notice the hard lumps that have been dug and notice how close to the pole the machine can be worked.

## Here's How and Why the Barber-Greene Made Good in Texas

From July 1st to December 31st, 1924, a Barber-Greene Ditcher dug 38,524 lineal feet of ditch for a Houston public service company. Here is that company's statement of the per lineal foot costs for the work.

Repairs.....	1.914c
Operation.....	2.688c
Overhead.....	2.724c
Total per lineal foot cost .....	7.33c

Comparing these figures with those previously established by hand labor has led this company to estimate that this single Barber-Greene earned a profit of \$4,880.99 for the six months.

There in facts and figures are the reasons why Barber-Greene are replacing even hand labor on digging jobs all over the country.

The ditching foreman will tell you a different story of why

BARBER-GREENE COMPANY—Representatives

and how the Barber-Greene makes good. He'll tell you of the vertical boom that digs straight down and eliminates all hand labor on such work as service laterals. He'll tell you how it digs faster and holds to grade.

He'll tell you about the overload release sprocket that makes the Barber-Greene as careful as human hands in its digging. He'll tell you about the full length crawlers that hold the Barber-Greene to line and permit it to cross soft spots and ditches without fill-ins or planking.

Or he may sum up the Barber-Greene, as a Florida trenching foreman did, like this, "It's the diggendest thing I ever saw."

We've put a coupon in the upper right hand corner to help you learn more about the diggendest ditcher, and about how it lowers digging costs and boosts digging profits. Sending it incurs no obligation, so, make use of it.

in 50 cities—560 West Park Avenue, Aurora, Ill.

# BARBER

Portable Belt Conveyors

Coal Loaders . . . Automatic



# GREENE

Self Feeding Bucket Loaders

Ditch Diggers . . Coal Feeders



## A BASEMENT A DAY

**T**HE BROWNELL CORPORATION of Detroit dig a basement with their Insley Excavator, move the machine and set it up in their new location all in a day's time. The average size of each basement is 35 feet x 25 feet x 5 feet and the distance between jobs ranges from one to five miles, although it is occasionally necessary to move clear across Detroit, a distance of 20 miles. It is easy to estimate the saving to them effected by this machine with a total daily operating expense of not to exceed twenty-two dollars. The Brownwell Corporation ordered their first Insley Excavator the middle of August, 1925. After it had been in operation less than two weeks, it was so successful in its performance that they ordered another one.



In order to do such work satisfactorily, an Excavator must be primarily a good digger, and in addition it must be flexible enough to move about at a reasonable speed under any conditions wherever the digging is to be done. With its low fuel consumption, one man control, and speedy operation, the Insley Excavator is a good digger, and is economical. With its long full crawler traction, extra wide crawler plates, easy control and ample power plant it is an excellent traveler under any condition. It has a bearing pressure on the soil of about 7 pounds per square inch, so that it can go over city streets without in any way damaging the street.

These qualities of ease and economy of operation and traveling, backed by the Insley reputation for sound design, good workmanship and the best of service, make the Insley Excavator a valuable investment.

Write to

W. E. Austin Machinery Co., Atlanta, Ga.

H. J. Powers, New Orleans, La.

Keiser-Geisner Engineering Co., Birmingham, Ala.

Robert G. Walls, Builders' Exchange, Memphis, Tenn.

Or

**INSLEY MANUFACTURING COMPANY**

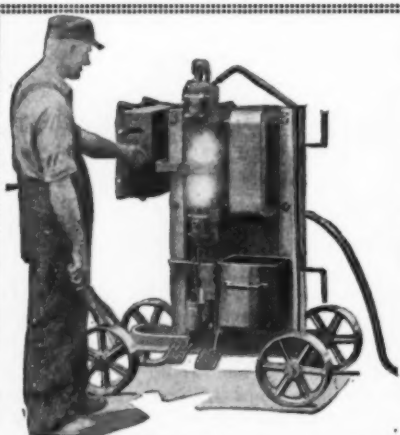
Engineers and Manufacturers

INDIANAPOLIS

No. 459

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Not to do the Work of a Large Shovel—but to do the Work a Large Shovel Can't do—Profitably



## The Natural Complement of the Most Up-to-the-Minute Air or Electric Rivet Driving Tools

The "AMERICAN" Electric Rivet Heater removes the work of heating rivets from the b'guess and b'gosh class and makes of it an operation as exact and measurable as the work of a lathe or other machine tool. It is the natural running mate of modern air or electric driving tools. Cleaner than forges and furnaces and more economical.

Made in three types:—

- 1—The Model "B" Four-rivet Structural Type.
- 2—The Model "C" Two-rivet Boiler Shop Type, which has auxiliary side contacts for superheating rivets in the grip.
- 3—The Model "A" Two-rivet Portable Structural Type.

Write for special booklet and full information.

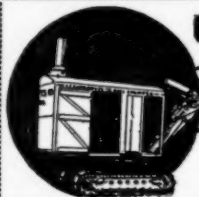
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HOIST & DERRICK CO.

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## P-H SHOVELS

The same quality of design and workmanship as found in P & H Travelling Cranes and Hoists. Convertible also into locomotive cranes, draglines and clamshell excavators. Ask for Bul. 82-X. **HARNISCHFEGGER CORPORATION** Successor to PAWLING & HARNISCHFEGGER CO. Established in 1884 3827 National Ave. Milwaukee, Wis.



## ERIE Steam Shovels

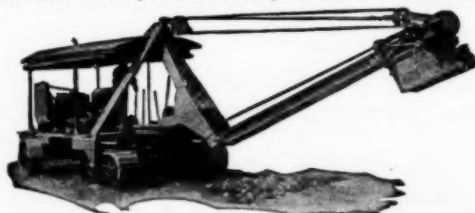
For road grading; handling road materials with clamshell bucket; cellar and trench excavation; excavating sand and gravel, etc. We will be glad to send photos and data, showing just what the ERIE Shovel is doing on these classes of work.

Write for Bulletin "P"

**ERIE STEAM SHOVEL CO.**  
Formerly Ball Engine Co., Erie, Pa., U. S. A.  
Builders of ERIE Shovels and Cranes

## THE CONVERTIBLE BAY CITY—16-B

For Pavement, Excavation, Road or Sewer Work



Operates Skimmer—Clamshell—Ditcher—Shovel

**BAY CITY DREDGE WORKS**

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# Is There Any Better Surety for Prompt Delivery?

When deliveries are prompt—the machinery is on the ground, ready to start on the day you set.

The work goes right ahead, according to your plans.

But if delivery promises are not kept you struggle along with inadequate equipment.

Perhaps you cannot start your work on time—perhaps you cannot complete it on time, perhaps you pay a forfeiture or it takes overtime and extra equipment to finish the job.

Meanwhile you wire and get more promises.

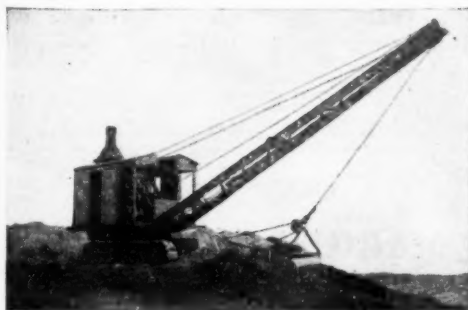
Then you sweat and worry on the job and probably lose money.

If you have ever had this experience you will appreciate what Bucyrus deliveries mean to Bucyrus users.

**A**LL standard Bucyrus shovels and draglines of every type shipped during the first six months of 1925 were ready for shipment within two days of the promised delivery date. Do not forget that this was at a time when the company's plants were operating at a higher capacity than ever before and that deliveries were quoted weeks ahead.

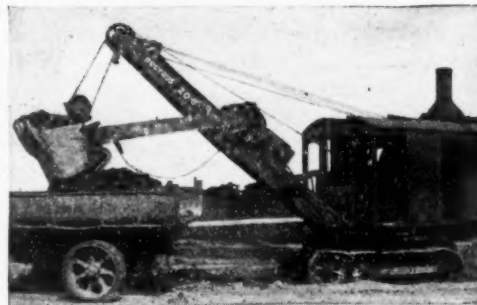
**BUCYRUS COMPANY, South Milwaukee, Wisconsin**

*Established in 1880*



Railroad Type and Revolving Shovels of all sizes, Dragline Excavators, Dipper, Hydraulic and Placer Dredges, Spreader Plows, Wrecking Cranes.

Special plant at Evansville, Ind., devoted exclusively to SMALL REVOLVING SHOVELS.



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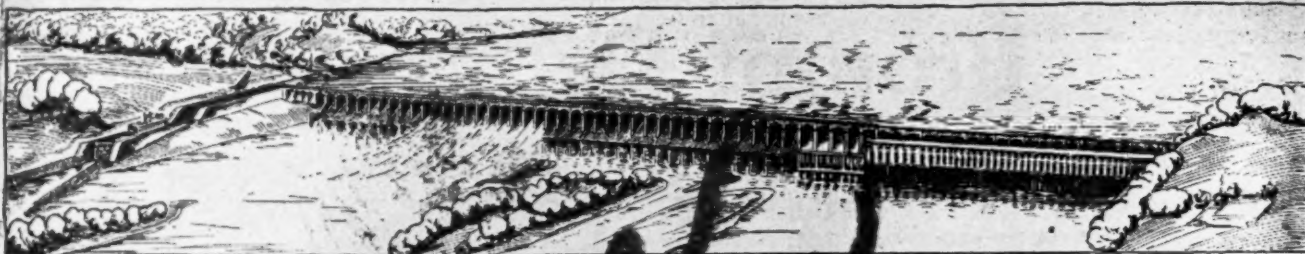
LONDON



676

ENGINEERING NEWS-RECORD

Vol. 94, No. 17



## Building Wilson Dam at Muscle Shoals on the Tennessee—I

How Work Was Planned, Construction Camp Located, Elevation and Sub-Foundation Exploration Carried Out and Concrete Placed on the Largest Dam in this Country

The description of the work will be given in four sections under the headings: (1) Construction Plan and Work Contingencies; (2) Foundation Exploration and Elevation; (3) Concreting Plan and Procedure; and (4) Electrical Equipment of the Dam. The first two sections are given below; the other two sections will appear in an ensuing article.—EDITOR.

**WILSON DAM** is the official designation of the group of structures for the much-promised hydro-electric development at the Muscle Shoals of the Tennessee River in Alabama. In volume it is the largest concrete dam in the world; it cost over \$50,000,000 and it will develop 612,000 hp.

As shown by the plan sketch, the dam proper begins on the north shore of the river at the lock which will pass the river. The total length of structure is about 2,900 ft. of which the dam is 3,098 ft. This length comprises 200 ft. of north-abutment section, 2,668 ft. of spillway section, and 230 ft. of tailrace section. The power house forming part of the river barrier, is 1,250 ft., the lock and abutment 150 and the switch-house building 400 ft. The north abutment is the usual gravity section, with battered face and vertical back and its crest is at El. 516. Superimposed piers and arches form a bridge which joins the movable span across the lock.

The face of the spillway section is of ogee form, the back is vertical and its crest is at El. 483. This section likewise has piers, which support arches and thus form a continuation of the high-level bridge. The piers are 8 ft. thick and the clear spaces between them are 38 ft. There are eight of these 38-ft. openings, and each has a discharge capacity of 11,800 sec.-ft. when pool surface is at El. 501. Each 38-ft. opening is fitted with a steel gate 18 ft. high, which has a vertical movement on roller-tracks.

through which the water is conducted to 18 hydraulic turbines. Surmounting it is the concrete bridge connecting the bridge on the main dam with the south shore roadway system.

In the substructure are the scroll cases, which receive the water delivered by the conduits and distribute it uniformly around the periphery of the Francis turbine runners. The water is discharged to the river below the power house through concrete draft tubes.

The superstructure is 75 ft. wide and 65 ft. high. The dam contains an inspection gallery at El. 411 which is about 9 ft. above the original rock surface of the river. This gallery is 6x9 ft. Its use is three-fold: First, the relief pipes which extend downward into the rock beneath the dam to relieve any water that would tend to exert an upward pressure on the dam are placed underneath, and extend upward into the inspection gallery where they make a right-angle turn downstream and discharge into the spillway. The amount of water that is relieved by these pipes is ascertained by means of gages situated in the gallery. Second, the three-way valves and discharge pipes for the regulating gate displacement tanks are also situated in this gallery. Third, it provides for the accumulation and discharge by pumping of the usual leakage through the dam.

The power generating machinery now in process of installation consists of four main units of 30,000 hp.

THE MARION STEAM SHOVEL COMPANY

MARION, OHIO, U.S.A.

# MARION



*The name to  
look for on a  
shovel, crane  
or dragline....*

Northwest Engineering Co.

*The largest exclusive builders of gasoline and electric  
shovels, cranes, and draglines*

1733 Steger Bldg., Chicago, Ill.

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***GAS or CONVERTIBLE ELECTRIC***

**CRANES • SHOVELS • DRAGLINES**

With the new "feather-touch" clutch control

MR11-58-RTG





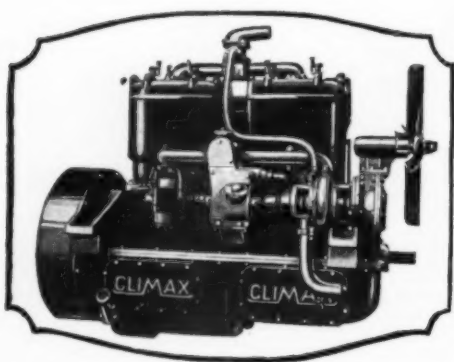
Writing of the splendid performance of Climax Engines on the job, Bay City Dredge Works say:

"The machine is engaged in tearing up a hard macadam road surface preparatory to laying the concrete. The photo clearly illustrates the hard nature of the digging, and pieces of the torn-up macadam can be seen in the foreground. The machine has sufficient power to dig right into this hard material without having it previously chipped or broken up. The depth of cut varies from 8 to 14 inches, in some cases it being necessary to split the macadam instead of getting under it.

The lower illustration shows the Skimmer Bucket cutting through the hard material and leaving a smooth grade."

# Power in the "PINCH"

It's the *unusual* power demand of the *occasional* job that makes every contractor thankful his shovels, cranes, hoists, etc., are equipped with



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Trade  
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**T**O meet the exacting demands of industry; explosives must be uniform in quality and dependable in their performance. Complete control by du Pont chemical engineers from raw material to finished product enables du Pont to manufacture explosives to a standard of *unvarying* quality.

With every case and cartridge bearing the distinctive du Pont "oval," users of explosives are enabled to identify the products of the du Pont Company. Specify du Pont explosives to insure better blasting results at lower cost.

If you have an explosive problem, let us aid in its solution—123 years of experience are available for the assistance of explosives users.

### *Blast with du Pont explosives*

There is a du Pont explosive to meet every blasting need—to do *your* particular work *best* at *least* expense. For contracting we especially recommend:

**Red Cross Extra Dynamite:** 20% to 60% strength; low-freezing; fairly water-resisting; heaving and lifting action.

**Du Pont Gelatin Dynamite:** 25% to 90% strength; water-resisting; low-freezing; dense; plastic; less obnoxious fumes.

**Du Pont R. R. P.,** (Judson type): 5% strength and low-freezing.

Du Pont Blasting Powder is the most widely used low explosive. It is regarded as standard everywhere. Every keg bears the orange band.

Du Pont blasting accessories give you maximum efficiency from your explosives. Make every shot *sure*—protect your blasting investment by using only du Pont accessories.

For further information about du Pont explosives and blasting accessories, please refer to *Road and Street Catalog*—or write to our nearest office.

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*Explosives Department*  
WILMINGTON, DELAWARE



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### Look Beyond Cost To Upkeep

You figure depreciation and upkeep on your machinery and buildings. Why not on your roads? Do it, and you will understand why our pavement is being used in preference to other types.

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Ground finer than other fillers. 80 to 90% passing 200 mesh screen. A more homogeneous and dense mix is secured by the use of this filler—making an unsurpassed wearing surface under heaviest traffic conditions. Output 200 tons daily. Immediate shipment. Sample upon request.

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*Crushed and Ground Alberene Stone.  
Manufacturers of Alberoyd Surfacers and Fillers.*

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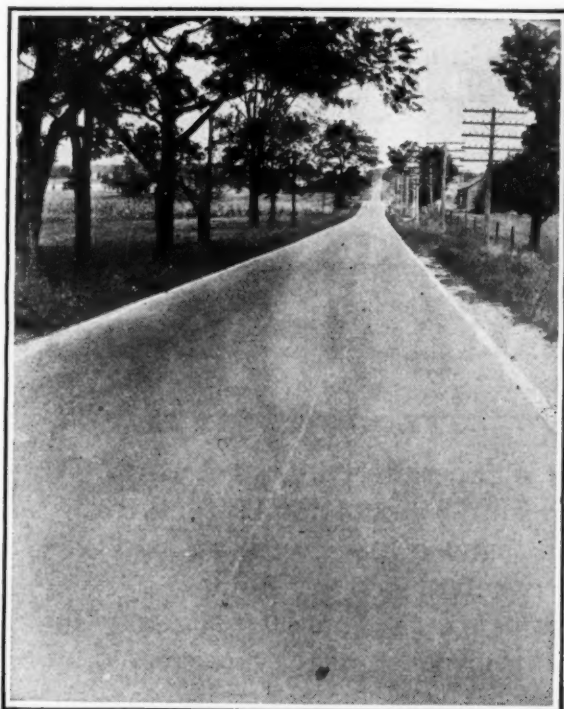
**Foundry Iron** { **Sloss, Noala, Etowah**  
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In 1921, what is known as the Alpine Road, leading out of Grand Rapids, Mich., was paved with two inches of TEXACO Asphaltic Concrete. It is a continuous stretch of 14 miles. During the four years which have elapsed since its completion, this pavement has suffered in no way

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Because of the effectiveness with which they absorb impact, prevent water penetration and successfully withstand varying temperatures, TEXACO Asphalt-paved streets and highways have gained nation-wide favor among engineers and contractors.

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*Permanent roads are a good  
investment—not an expense.*

## Before You Invest in Paving— Investigate Concrete

The Bates Experimental Road is now a matter of history. The highway authorities of Illinois built this road to find out what type of highway pavement was necessary to stand the pounding of twentieth century traffic.

Three principal road building materials and various combinations and thicknesses of these were used. For many days and nights fleets of loaded motor trucks passed over this 2-mile stretch. At intervals the truckloads were increased until each rear wheel was carrying 8,000 pounds. A total of 377,460 tons was trucked over the road during the test.

Only thirteen of the original sixty-three sections survived. *Ten were of portland cement concrete.*

The other three had heavy concrete foundations which in all respects corresponded to the plain sections of portland cement concrete.

Many other sections with wearing surfaces placed on less enduring foundations were failures, proving that the foundation strength of good concrete was the winning factor.

The test above referred to was equivalent to several years of normal highway traffic. It proved that properly built concrete pavement is the most enduring and economical street and road construction material known. It proved that the added cost of so-called "wearing surfaces" or "tops" of other material was not justified. It proved that concrete combines all of the essentials of the ideal pavement—it is economical, skidproof, rigid and lowest in maintenance cost.

Many communities are profiting from the lessons taught by the Bates Experimental Road.

Is your community one of these?

Send today for our free illustrated booklet—  
"Concrete Streets for Your Town"

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*A National Organization to Improve and Extend the Uses of Concrete*

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# INTERNATIONAL SYSTEM

COMPRISING TEN MILLS IN NORTH AND SOUTH AMERICA WITH A CAPACITY OF 12,000,000 BARRELS PER ANNUM



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**D**URING the 1920 shortage, purchasers of cement in some localities were willing to pay high premiums—\$5 per barrel as against a price of \$2.50, and in some cases as much as \$10, for immediate shipments.

Two alternatives were open to the International System. It could sell at prices which would mean great profits, or it could prorate production among old customers at a fair price.

After careful investigation of the requirements of each customer, a definite allotment of cement was made. Prices were pegged at the previous level, with an accurate allowance for increased costs.

The entire output of the International mills was marketed on that basis.

That action is simply one example of the intention of the International executives to deal with each customer as though the buyer and the seller were members of the same organization.

Aside from the personal satisfaction of doing business in this way, they regard the sacrifice of immediate profits, however tempting, as a decidedly worthwhile investment in permanent good-will.

Organized in 1919, the International System has grown from a capacity of 2,800,000 barrels a year to 12,000,000. It now has ten modern mills in the United States, Cuba and South America.

Under the brand name LONE STAR, the product of the International mills is now available throughout the South.

With plants in Dallas, Houston, Birmingham, Norfolk, and a new plant shortly to be built in New Orleans, as well as with plants near Kansas City and Indianapolis, the International System is equipped to maintain the unusual service for which it has become noted.



LONE STAR—  
symbol of the  
INTERNATIONAL  
SYSTEM

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PRODUCT OF THE INTERNATIONAL SYSTEM  
OF WHICH THE ALABAMA PORTLAND CEMENT COMPANY IS A MEMBER





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It may be HEAVY Traffic, EXTREME Heat, SEVERE Cold, or action of Salt Water—"WARRIOR" stands the gaff.

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CRUSHED STONE  
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*Rail or Water Deliveries*

Shipping Points—Petersburg Fredericksburg James River  
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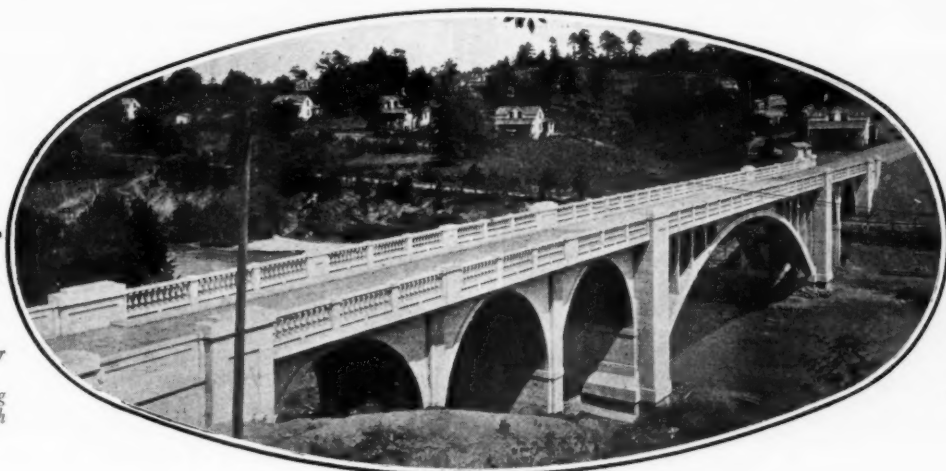


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CHATTANOOGA, TENNESSEE



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## Bridges of Concrete Are Investments

Have you noticed that where highway improvement involves the building of any bridges almost invariably these are constructed of concrete?

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This they know—concrete is durable and substantial; it eliminates maintenance; it lends itself to artistic design that cannot be matched by any other material, and it creates structures that please and satisfy and constitute a sound investment of public funds.

*Evidences of the adaptability of concrete for permanent structures will be gladly furnished*



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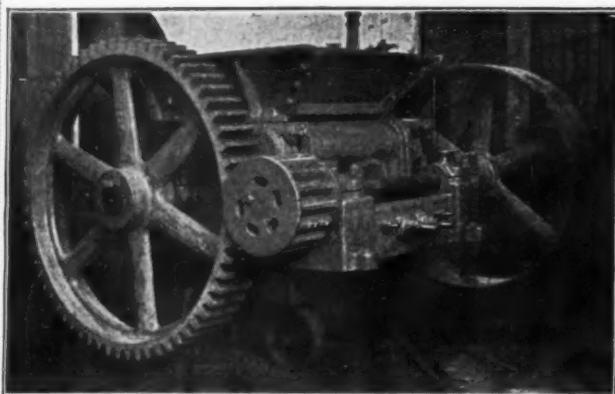
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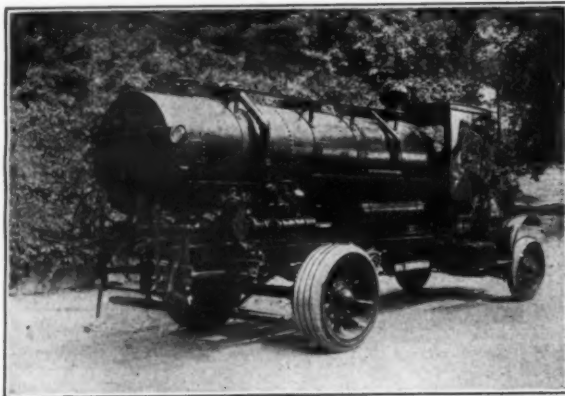
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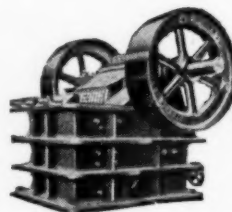


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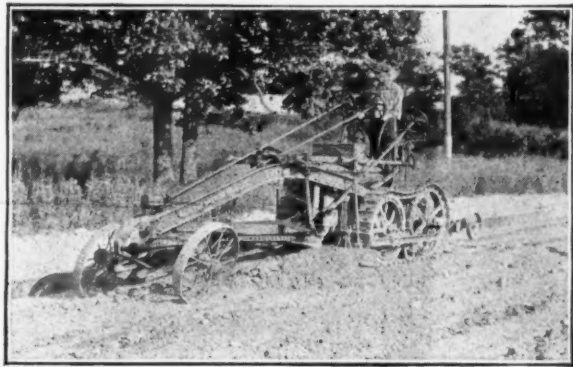
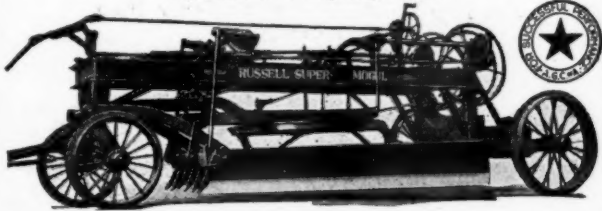
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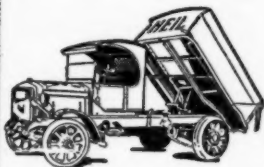
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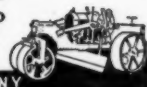
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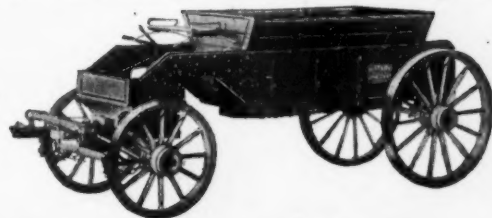
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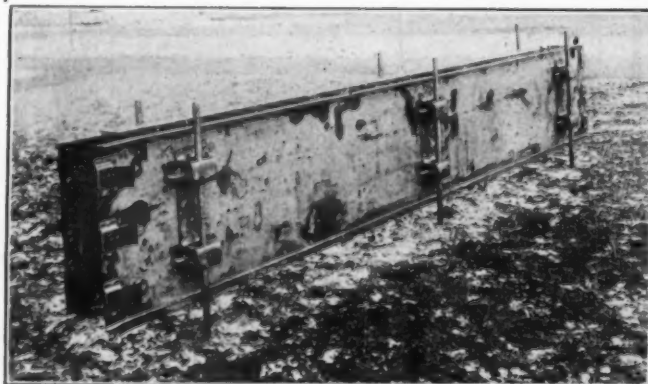
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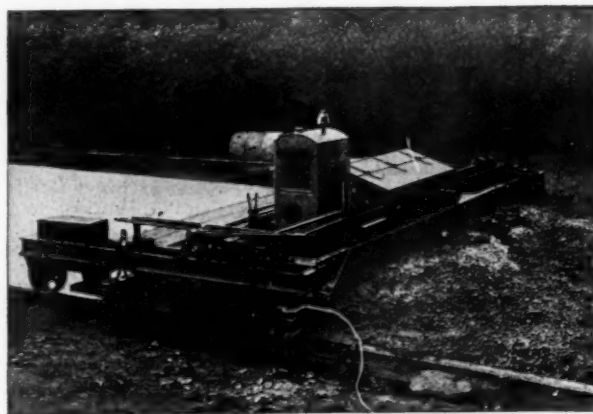
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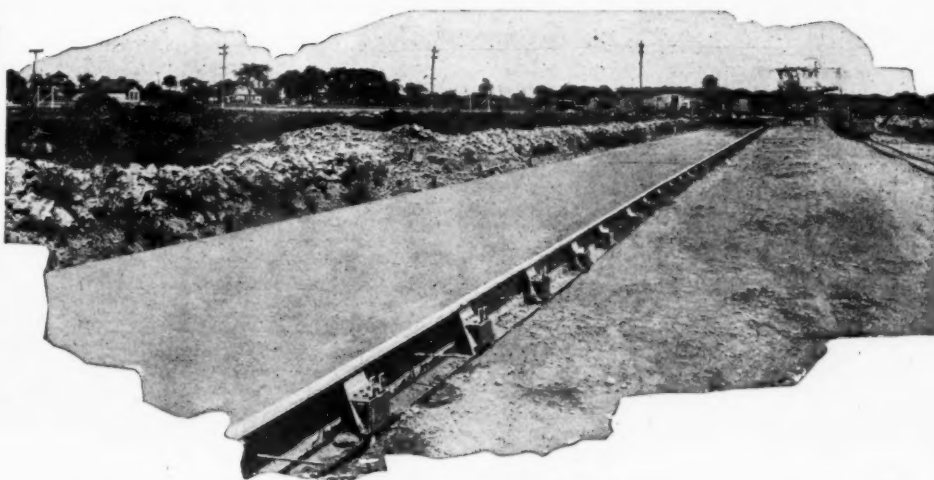
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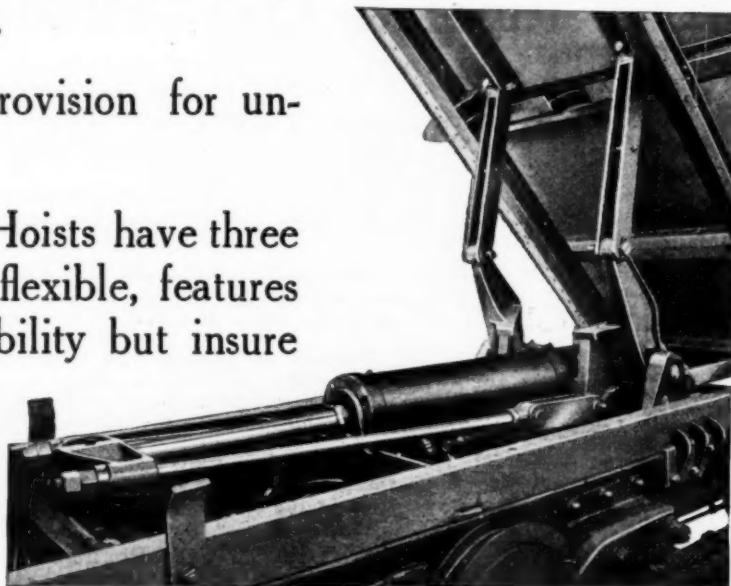
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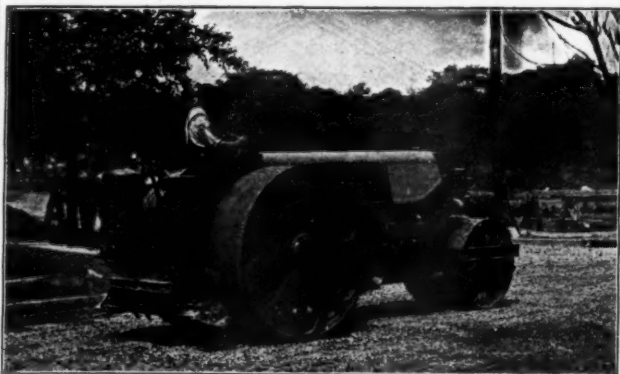
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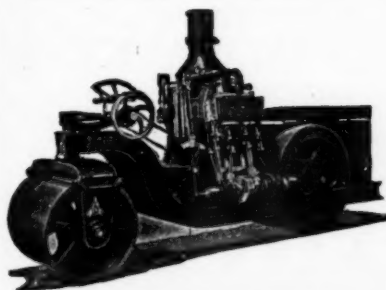
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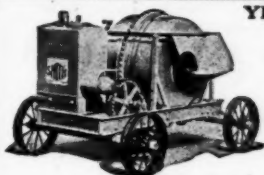
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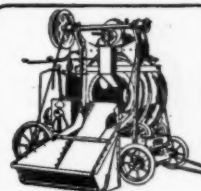
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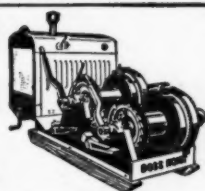
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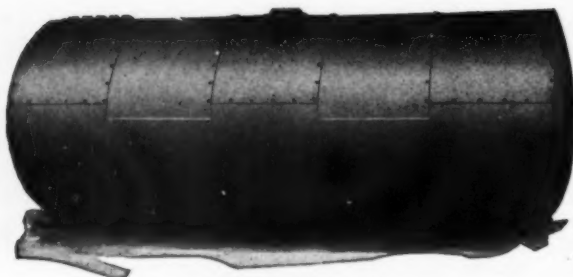
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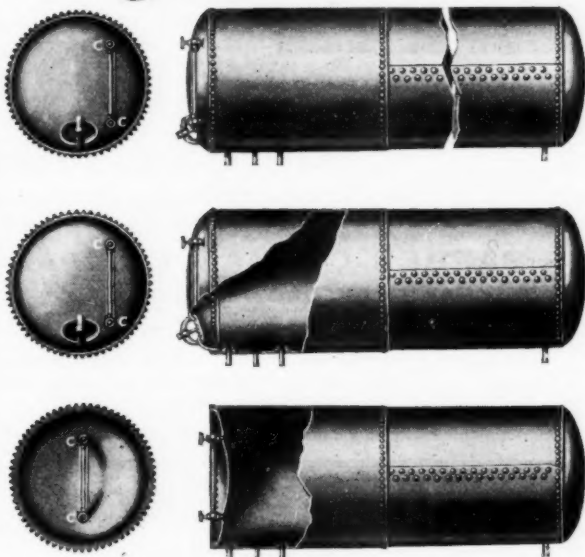
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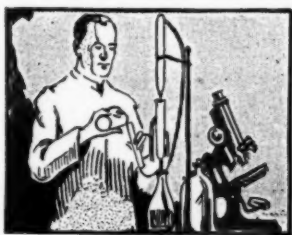
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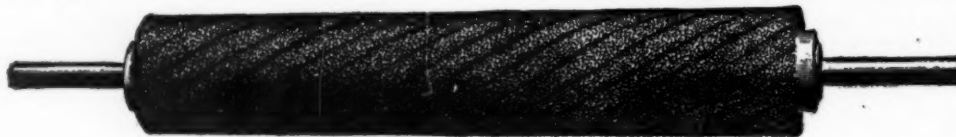
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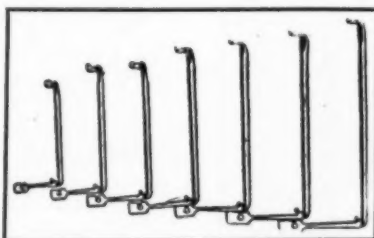
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We invite the co-operation, through the purchase of copies of the Blue Book of Southern Progress, of business firms, railroads, chambers of commerce, financial institutions and all those who are seeking business in the South or desire to attract capital and industries, and who have been active factors in helping to make possible the truly amazing progress of the South.

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## 1925 EDITION OF THE BLUE BOOK OF SOUTHERN PROGRESS

Manufacturers Record Publishing Co.,  
Baltimore, Md.

You are authorized to enter our order for.....copies of the 1925 edition of the "Blue Book of Southern Progress," at..... cents per copy, for which we agree to pay when delivered.

Rates, 1,000 or more—30 cents per copy  
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Orders for 10 or less should be accompanied by check or money order.

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## A Charming Winter Resort

Increasing thousands are journeying every year Southward from Northern states. The benefits from a change during the winter months to a genial climate are fully recognized. They mean added years of life and happiness.

The Highland Pines Inn offers rest and recreation. We are flattered by the praise our friends are pleased to give for what they term "unusual hospitality," and we are gratified that they return year after year.

Unsurpassed golf courses and a new clubhouse add to the pleasure of our guests.

SEASON  
NOVEMBER 20 TO MAY 1

Golf  
Polo  
Riding  
Tennis  
Racing  
Hunting  
Canoeing  
Motoring

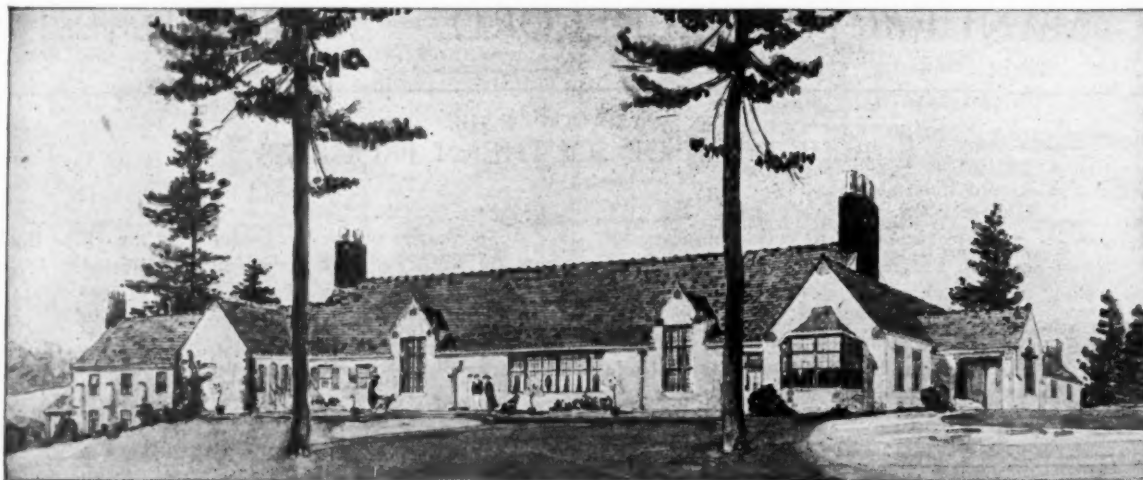
Main Line Seaboard Air Line  
Railroad with through Pullman  
Service.

Half way between New York and  
Florida.

## HIGHLAND PINES INN

Weymouth Heights      Southern Pines, N. C.

Creamer & Turner, Proprietors



Southern Pines Country Club



*IN the heart of Florida's  
beautiful lake country*

# CHULUOTA

Fertile soil  
Pure water  
Paved roads  
Good schools  
Healthful climate  
63 feet above sea level  
22 miles northeast of Orlando  
22 miles southeast of Sanford  
28 miles from the Atlantic Coast  
Served by the Florida East Coast Ry.

**Townsite Development:** Street paving—Water Works Extension—Home Construction.

**Farm Land Development:** Clearing and fencing of ten acre tracts and Building Homes.

The Chuluota Company—owners and developers—are doing the above at *this* time.

They are offering acreage and town lots or a house and lot or a house and ten acre farm, cleared and fenced ready for the fall planting, on their regular terms of purchase.

Personal inspection of the property invited.

Good Hotel Accommodations at reasonable rates.

*Write for information.*

## CHULUOTA COMPANY

(Flagler System)

### MAIN OFFICE

Wm. R. Kenan, Jr., *President*  
J. W. Hoffman, *Vice-President*

### CITY BUILDING

St. Augustine, Florida

### RESIDENT AGENT

A. G. Wagner

CHULUOTA  
FLORIDA





## ALABAMA OPPORTUNITIES

# 1,640 Reasons Why— Birmingham is a Great Factory Center

**M**ORE than 600 manufacturing plants in BIRMINGHAM are engaged in fashioning 1,640 diversified products.

It is preeminently a city of iron and steel—the only industrial center in the world where coal, iron and limestone are found in one locality—yet the majority of Birmingham's industries are by no means limited to, or dependent upon, iron and steel.

Automobile parts, bagging, baskets, boxes, brick, cars, chemicals, dyes, clothing, concrete, explosives, furniture, paint, polish, toys—an endless roll call down the alphabet.

All kinds of manufactories flourish in Birmingham because:

### **Transportation—**

Birmingham is a great railroad center, served by nine trunk lines, representing 32,000 miles of track.

### **Rail and Water Rates—**

Birmingham has the advantage of low rail and water rates, with a direct outlet to the sea through the Warrior-Tombigbee River System.

### **Cheap Fuel—**

Birmingham is the center of a great coal field, where fuel is cheap—not only coal and coke, but abundant by-product gas.

### **Low-Cost Power—**

Birmingham secures, at low rates, the hydro-electric energy developed by the projects of the Alabama Power Company.

### **Ideal Climate—**

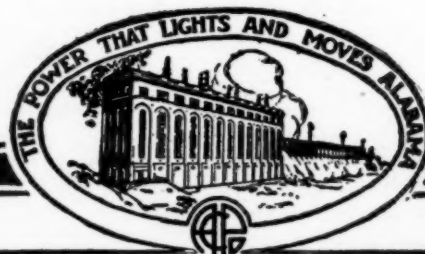
Birmingham has a mild and equable climate that makes possible factory operation, indoors and out, the year 'round. No snow—no slush—few freezes.

### **Abundant Labor—**

Birmingham has an abundant and dependable supply of labor, skilled and unskilled—and ideal living conditions for these workers as to housing, school facilities and other advantages.

## **Industry Is Going South—and Birmingham Is the South's Industrial Center**

For detailed information on the many inducements which Alabama holds out to manufacturer and investor, write for recent booklet, "Alabama's Resources and Industries." Address Commercial Department, Alabama Power Company, Birmingham.



**ALABAMA POWER COMPANY**  
BIRMINGHAM, ALA.

# New opportunities await some REFRACTORY PRODUCTS manufacturer—IN GEORGIA!

## Know more about GEORGIA REFRACTORY CLAYS

—get  
these interesting  
bulletins!

Each of these bulletins is an official report of the research and tests with Georgia Refractory Clays for various commercial purposes. They contain no elaboration—just the simple facts of the superiority of Georgia Refractory Clays and other valuable information for those seriously interested in their exploitation and use. Write for any one of them, or all, if you wish.

*Utilization of Georgia  
Kaolins for Refractories.*

*Kaolin and Refractory  
Clay Deposits in Wilkin-  
son County, Georgia.*

*Washing Tests of  
Georgia Clays.*

*Georgia Clays for Paper  
Fillers.*

*Georgia Clays for Rubber  
Fillers.*

*Use of Sedimentary  
Kaolins of Georgia in  
Whitewares.*

*Distribution of Kaolin  
and Bauxite of the  
Coastal Plain of Georgia.*

*Directory of Commercial  
Minerals in Georgia and  
Alabama Along Central  
of Georgia Railway.*

Recent extensive research reveals **GEORGIA CLAYS** and **KAOLINS** as the **SUPERIOR** material for refractory products manufacture. Deposits provide a raw material source that will last over 600 years. Established refractory products manufacturers are urged to investigate the exceptional opportunities Georgia offers for the establishment of a branch plant to serve the Southern, South and Central American markets.

**NATURE** endowed Georgia with generous deposits of higher quality refractory clays, the value of which, for certain commercial purposes, has not been fully realized until recent years.

With the refractory clay deposits fast waning in other sections of the country, and the recent disclosure of Georgia's huge deposits of better clays—today Ceramic experts point to Georgia as the future center for the production of certain refractory products—particularly fire-brick! As a result of extensive tests under actual operating conditions it has been conclusively proven that fire-brick of greater lasting qualities can be made from Georgia Kaolin alone—just one material!

As an established manufacturer of fire-brick or other refractory products, contemplating expansion or seeking an additional plant site closer a better raw material source—Georgia beckons you to investigate the unusual opportunities that await you in the South—NOW!

## These Tests Proved the Superiority of Georgia Kaolin for Fire-Brick

Ordinary fire-brick usually fails, in the bottom of an open-hearth ladle, after two or three weeks' service through spalling and disintegration. Georgia Kaolin brick in a ladle, at mid-west plant, were in exceptionally good condition after eleven weeks' service! This test proved Georgia Kaolin brick to give 266 percent better service than that rendered by commercial brands tested similarly. Other tests showed Georgia Kaolin brick to be at least equal, and in the majority of cases superior, to fire clay and silica fire-brick—in one instance 29 percent better and in another 220 percent! Georgia Kaolin shows a deformation value from cones 34 to 39 and better load carrying capacity, as well as exceptional resistance to spalling.

## Extensive Deposits of Georgia Refractory Clays

The refractory clay and Kaolin belt of Georgia extends from Augusta to Columbus, covering an area of approximately 10,000 square miles. These deposits are the largest in the Eastern section of the country. In Wilkinson County alone (just one of 15) there is sufficient raw material to supply the needs of the refractory and other Kaolin consumers of the country for over 600 years, at the industry's present rate of refractory clay consumption.

## Easy to Mine—Mostly Surface Deposits

The Georgia refractory clay deposits are mostly surface deposits and are easily and economically worked with steam shovels. Overburden varies from 5 to 20 feet and usually consists of loose red sand and occasionally fullers earth. Deposits run from 10 to 40 feet deep. Crude clay can be mined in quantity at a cost of from 30 to 40 cents a ton as compared to an approximate cost of \$1.50 to \$2.00 a ton where underground mining is necessary.

## Cheaper to Manufacture Georgia Kaolin Fire-Brick

The fire-brick put to the tests heretofore mentioned, was made of only one material—Georgia Kaolin! This clay enables you to make a better fire-brick from one clay only—an economic advantage of great importance in the cost of production! Power is reasonable and labor plentiful. Present price of labor in the Georgia clay district is from 17½ to 20 cents per hour. Fuel oil costs 6½ cents per gallon and coal from \$4 to \$5 per ton.

## Lighter Weight Finished Brick— Lower Shipping Costs

The average weight of standard size finished Georgia Kaolin fire-brick is only 6½ lbs. as compared with 7 lbs. average weight of standard size ordinary fire-clay brick. This means a saving of 500 lbs. per thousand brick—an item that reduces freight costs considerably. Freight rates are favorable. Excellent rail and water service exists for shipment of finished brick to all points north and west.

## Savannah—the Gateway to a Great Fire-Brick Market

The Georgia refractory clay deposits are only 150 miles by rail from the port of Savannah, through which finished brick can be economically shipped by rail or water to any point on the Atlantic seaboard. It is the water and rail gateway to the great fire-brick markets of this country and the seaport for steamer shipment to the great markets of Cuba, Central and South America. Better fire-brick is needed in all of these countries—think of the possibilities that await the refractory products manufacturers that establish a branch plant in Georgia!

## Ask Our Co-operation!

The Central of Georgia Railway, as a result of extensive common sense research, has compiled valuable up-to-date information pertaining to the opportunities that exist in Georgia for refractory products manufacturers. Ask our co-operation—we want to see you succeed in Georgia!

**American Ceramic Society Annual Convention, Atlanta  
February 8-13, 1926**

## Central of Georgia Railway

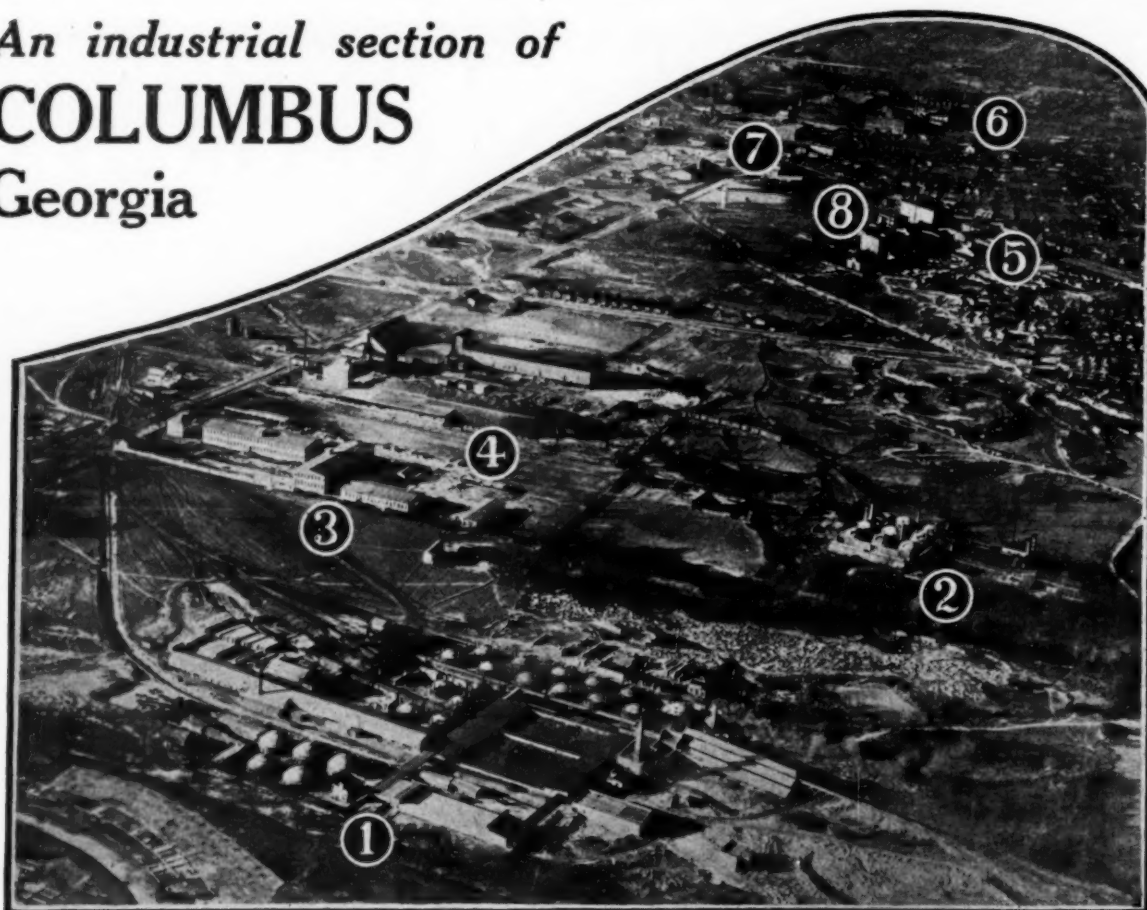
**J. M. Mallory**  
Gen'l Industrial Agent

**CENTRAL  
OF  
GEORGIA**

**233 West Broad St.  
Savannah, Ga.**



*An industrial section of*  
**COLUMBUS**  
*Georgia*



**Key**  
to this picture

1. Columbus Brick & Tile Co.
2. Berry Brick Co.
3. Centennial Cotton Gin Co.
4. International Agricultural Corp.
5. Lummus Cotton Gin Co.
6. Bradley Manufacturing Co.
7. Chero-Cola Co.
8. Pekor Iron Works.

**There are Over 100 Manufacturing Plants in Columbus**

*We supply power to all but two of them*

—and these are PARTLY operated by power from our lines. We supply 100 per cent of the cotton mills within reach of our transmission lines. Columbus probably is the most completely electrified industrial city of the entire South. Only exceptional power service could give us this prestige.

*Let us tell you more about our power service to manufacturers and the opportunities for industry at Columbus, Georgia.*



**Columbus Electric & Power Co.**  
Columbus, Georgia

West Point—La Grange—Newnan—Hogansville

*Executive Management STONE & WEBSTER, Inc.*

## Continuous Power Service in Spite of the Drought

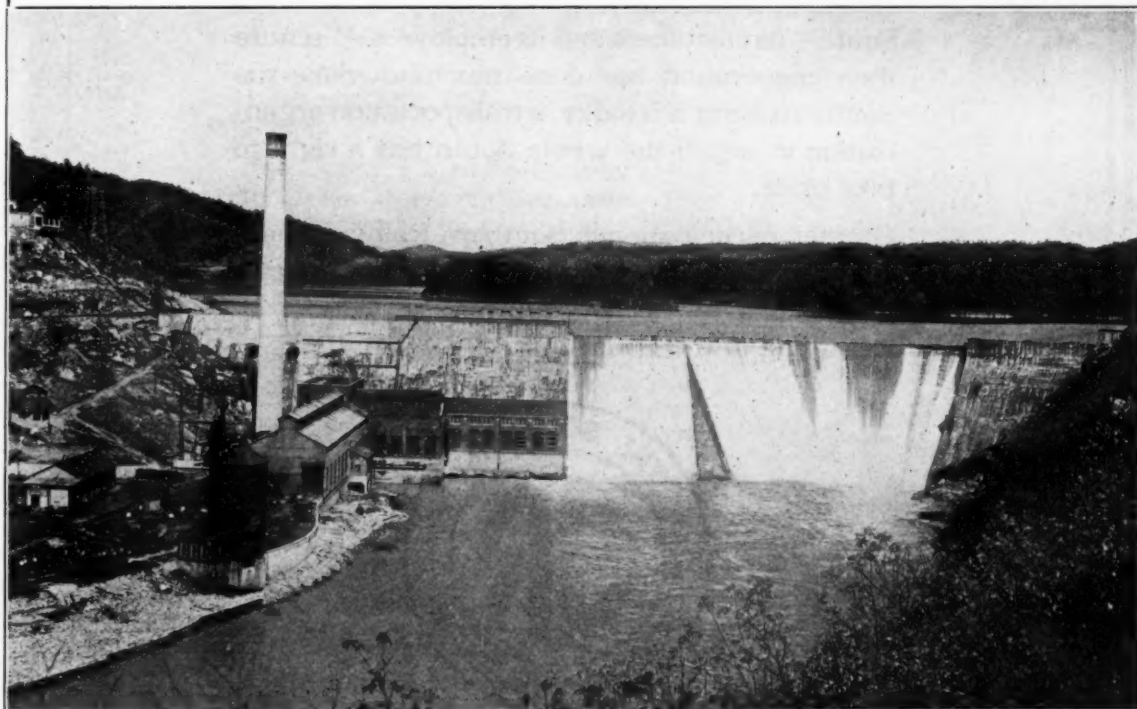
**N**OT a single customer of The Tennessee Electric Power Company in any line of industry found it necessary to curtail operations during the unprecedented drought which recently prevailed in the South.

The wisdom and foresight exhibited by the management of The Tennessee Electric Power Company in the development of its properties—providing adequate steam reserve plants to supplement the output of its hydroelectric stations in times of need—enabled this Company to maintain its own record and that of its predecessors in *never curtailing or suspending service to any customer.*

The picture shows one of the combination hydroelectric and steam plants operated by the Company. Altogether this power system comprises four large water and four large steam plants, totaling 265,180 horsepower, which furnish electricity to industries in 125 cities and towns of Middle and East Tennessee.

Ample, dependable electric power, regardless of conditions, is thus assured to all manufacturers locating in this section. Write us for information about Tennessee.

**The Tennessee Electric Power Co.**  
Chattanooga, Tennessee



*Combination hydroelectric and steam reserve generating plants of The Tennessee Electric Power Company on the Ocoee River in East Tennessee.*



THE SOUTHERN SERVES THE SOUTH

## Who will provide the new capital?

The ability of any business to obtain new capital depends upon its credit.

Do its stocks and bonds offer safe investment?

Is the property conservatively capitalized?

Has it maintained a steady earning power?

Is its business likely to expand?

Has the management a proper appreciation of its threefold responsibility:

[1] to give good service to customers

[2] to deal fairly with employees

[3] to safeguard the capital investment of the owners?

The management of the Southern cordially invites an examination of the System's record measured by these standards.

It invites this knowledge of its strong financial standing, particularly among the people of the South—its customers and its employees—because their cooperation has done much to make the Southern what it is today, a transportation organization in which the whole South has a right to take pride.

Greater participation in Southern Railway financing in the future by its own customers and employees will make the Southern still more an institution of the South.



SOUTHERN RAILWAY SYSTEM

## *The Difference:—*

### **A Northern Business Man Recently Said:**

"There are ten men to every opportunity in the North, while there are ten opportunities to every man in the South."

And herein lies the explanation for the unprecedented expansion in Southern development. The Opportunities are here, and the business mind of America is not slow to grasp the situation. Witness the avidity with which shrewd investors snap up Southern development securities. Back of this is the knowledge of the basic soundness of these securities, the knowledge that the fundamentals—raw materials, power, labor, climate, soil and transportation—are here, and need only the requisite capital for profitable development.

Millions and millions of Northern and Eastern capital are being invested in the South, and the same is true of Southern capital, for the South believes in its self.

Here are some indications of the trend of the times:

New building construction in the principal cities of sixteen Southern States during the first half of 1925 amounted to almost \$400,000,000.

Investments in industrial expansion, power and transportation during the same period totaled approximately \$500,000,000.

Bank deposits in the South total \$6,000,000,000.

Stupendous as these figures are, it is our opinion that the half has not been told—that the South's development is just beginning.

The Seaboard Air Line Railway serves the very heart of the section where these activities center. The Development Department of the Seaboard is thoroughly familiar with conditions in this territory, both industrial and agricultural. The advice and services of this Department are free for the asking. Prospective settlers or developers will do well to avail themselves of this expert knowledge.

**Development Department**

**SEABOARD AIR LINE RAILWAY CO.**

**203 Oglethorpe Building, Savannah, Georgia**

**CLEMENT S. UCKER**  
Director of Development

**J. N. McBRIDE**  
General Agricultural Agent



# VALDOSTA, GEORGIA

*Val de Oasta*

*Vale of Beauty*

## HAS

### INDUSTRIES

39 Industrial plants, utilizing products of field and forest.

### TRANSPORTATION

3 Trunk railroads, radiating in seven directions.

### EDUCATION

Accredited high schools, state woman's college, site of proposed Woodrow Wilson College.

### GENERAL

13,500 population, 145,000 trading population, complete waterworks and sewerage systems, more than \$1,250,000 civic improvements projected.

## IN SHORT

Valdosta has these and other essentials for profitable investment.

### Address

**Chamber of Commerce**

## MANUFACTURERS!

The Trend of Industry  
Turns to

## Hendersonville

(ALTITUDE 2250)

Western North Carolina

*The Home of*

Cotton Mills, Hosiery Mills, Brick Plants,  
Wood Plants, Invites New Industries

We are organized to help you locate.  
Co-operative community friendly to industry.

Contented mountain labor, in a  
bracing climate makes for production records.

Plenty of electrical power and track-  
age for industrial plants and villages.  
Remarkable supply of mountain water.

Industrial water supply analysis  
available.

Transportation facilities on Southern  
Railway and hard surfaced highways.  
Reasonable tax adjustments.

Excellent Schools and Churches. In  
fact a well rounded community.

*Write the Hendersonville  
Chamber of Commerce for  
Description and Factory  
Sites.*

HENDERSONVILLE NORTH CAROLINA

## OPPORTUNITIES

### Industrial and Agricultural

The A. & W. P.—W. Ry. of Alabama and  
Georgia Railroads traverse a territory rich in  
material and potential resources. Attractive  
industrial sites. For information apply:

**Commercial & Agricultural  
Dev. Dept.—Above Lines  
Atlanta, Georgia**

## YOU can not afford to overlook ALEXANDRIA, VIRGINIA

*"The Key to Dixie"*

Manufacturing sites on railroads and deep water.  
Nearby markets for all classes of manufactured products.  
Low rates. Cheap fuel and raw materials.

Correspondence and investigation solicited

Address: CHAMBER OF COMMERCE

## THE W. S. HARTLEY CO.

Industrial and Commercial  
Real Estate  
SATISFACTORY SERVICE

Phone, Main 178  
Main 1978

142 East Fourth Street

CINCINNATI, OHIO

# Classified Reference Index for Buyers

## ABRASIVE MATERIALS.

Carborundum Co., Niagara Falls, N. Y.

## ACCOUNTANTS. (Certified Public.)

Black & Co., Baltimore, Md.  
Ernst & Ernst, New York, N. Y.  
Hilton, W. P., Norfolk, Va.

## ACCOUNTANTS. (Cost.)

Ernst & Ernst, New York.  
Hilton, W. P., Norfolk, Va.  
Loper & Co., Ralph E., Fall River, Mass.

## ACETYLENE. (Dissolved.)

Pre-O-Lite Co., Inc., The, New York.

## ACETYLENE GAS.

Pre-O-Lite Co., Inc., The, New York.

## ACETYLENE GENERATORS.

Imperial Brass Mfg. Co., Chicago, Ill.  
Milburn Co., The, Alexandria, Balto., Md.

## AERIAL TRAMWAY.

Broderick & Bascom Rope Co., St. Louis, Mo.  
Leechen & Sons Rope Co., A., St. Louis, Mo.

## AIR AND GAS COMPRESSORS.

Chicago Pneumatic Tool Co., New York.

## AIR COMPRESSORS. (Stationary and Portable.)

American Air Compressor Works, Brooklyn, N. Y.  
Chicago Pneumatic Tool Co., New York.  
DeLaval Steam Turbine Co., Trenton, N. J.  
Domestic Engine & Pump Co., Shippenburg, Pa.  
General Electric Co., Schenectady, N. Y.  
Ingersoll-Rand Co., New York, N. Y.  
Pennsylvania Pump & Compressor Co., Easton, Pa.  
Sullivan Machinery Co., Chicago, Ill.  
Westinghouse Traction Brake Co., Wilmerding, Pa.

## AIR COMPRESSORS. (Used.)

Armstrong, Inc., Archer, New York, N. Y.

## AIR CONDITIONING SYSTEMS.

Kirk & Blum Mfg. Co., The, Cincinnati, O.  
Skinner Bros Mfg. Co., Inc., St. Louis, Mo.

## AMMONIA RECEIVERS AND TANKS.

York Mfg. Co., York, Pa.

## AMMONIA VALVES AND FITTINGS.

Columbus Iron Works Co., Columbus, Ga.  
Frick Co., Waynesboro, Pa.  
Vogt Machine Co., Inc., Henry, Louisville, Ky.  
York Mfg. Co., York, Pa.

## ANCHORS. (Floor and Wall)

Bull Dog Floor Clip Co., Winterset, Iowa.

## APPRAISERS.

American Appraisal Co., Milwaukee, Wis.  
Austin Co., The, Cleveland, O.  
Conard & Busby, Burlington, N. J.  
Standard Appraisal Co., New York City.

## ARCHITECTS.

Brown, A. Ten Eyck, Atlanta, Ga.  
Dalla, Park A., Atlanta, Ga.  
Lindley, C. H., Jackson, Miss.  
Mackintosh, C. G., High Point, N. C.  
Marve, Alger & Alger, Atlanta, Ga.  
Millburn, Helster & Co., Wash., D. C.  
Prack, Bernard H., Pittsburgh, Pa.  
Preacher & Co., Inc., G. Lloyd, Atlanta, Ga.  
Stirling & Co., J. E., Greenville, S. C.  
Spiker & Co., Atlanta, Ga.  
Sutton & Routt, Fort Lauderdale, Fla.

## ARCHITECTS. (Golf.)

Chicago Landscape Co., Chicago, Ill.  
Mackintosh, C. G., High Point, N. C.

## ARCHITECTS. (Landscape.)

Bridgeman & Allen, Inc., West Palm Beach, Fla.  
Chicago Landscape Co., Chicago, Ill.  
Clemens & Bahlman, Jacksonville, Fla.  
Draper, E. S., Charlotte, N. C.  
Florida Landscape Engineering Co., Inc., Tampa, Fla.  
Noyes, John, St. Louis, Mo.  
Taylor Offices, A. D., Orlando, Fla.  
Willis, W. N., Spartanburg, S. C.

## ARCHITECTS' SUPPLIES.

Weber Co., F., Philadelphia, Pa.

## ARCHITECTURAL IRON WORK.

Chesapeake Iron Works, Baltimore, Md.  
Dietrich Brothers, Baltimore, Md.  
Snead Architectural Iron Works, Louisville, Ky.  
Virginia Bridge & Iron Co., Roanoke, Va.

## ARMATURE AND FIELD COILS.

Anderson's, Inc., Nashville, Tenn.  
Chattanooga Armature Works, Chattanooga, Tenn.  
Michael & Bivens, Inc., Gastonia, N. C.

## ART GLASS.

Binswanger & Co., Inc., Memphis, Tenn.

## ASBESTOS PROTECTED METAL.

Robertson Co., H. H., Pittsburgh, Pa.

## ASH PIT DUMPS.

Jannet & Co., Montgomery, Ala.

## ASPHALT.

Barber Asphalt Co., Philadelphia, Pa.  
Gulf Refining Co., Pittsburgh, Pa.  
North Carolina Amiesite Co., Hendersonville, N. C.  
Texas Co., The, New York, N. Y.

## ASPHALT. (Process.)

Robertson Co., H. H., Pittsburgh, Pa.

## ASPHALT FILLER.

Alberene Stone Co., New York, N. Y.  
Alberoyd Co., Esomont, Va.  
American Limestone Co., Knoxville, Tenn.  
Ocean Stone & Gravel Co., Tampa, Fla.  
Texas Co., The, New York, N. Y.

## ASPHALT HEATERS.

Honbert Co., The, Jos., Cincinnati, O.  
Kinney Mfg. Co., Boston, Mass.  
Littleford Bros., Cincinnati, O.

## ASPHALT MASTIC. (Acid Resisting Construction.)

Rulon, Ralph V., Philadelphia, Pa.

## ASPHALT MIXERS.

Erie Machine Shops, Erie, Pa.  
Smith Co., The, T. L., Milwaukee, Wis.

## ASPHALT PAVING PLANTS.

Cumner & Son Co., F. D., Cleveland, O.  
Farsey Mfg. Co., J. D., Cleveland, O.  
Smith Co., The, T. L., Milwaukee, Wis.  
Warren Brothers Co., Boston, Mass.

## AUDITORS.

Black & Co., Baltimore, Md.  
Ernst & Ernst, New York, N. Y.  
Hilton, W. P., Norfolk, Va.

## AUTOCLAVE.

Pusey & Jones Co., The, Wilmington, Del.

## AUTOMATIC SPOOLERS.

Barber-Colman Co., Rockford, Ill.

## AUTOMOBILE ACCESSORIES.

Baltimore Gas Light Co., Balto., Md.

## AUTOMOBILE TIRES.

U. S. Rubber Co., New York, N. Y.

## AUTOMOBILE TRUCKS.

Ford Motor Co., Detroit, Mich.  
General Motors Truck Co., Pontiac, Mich.  
International Harvester Co. of America, Inc., Chicago, Ill.

## BACKFILLERS.

American Cement Machine Co., Inc., Keokuk, Iowa.  
Harnischfeger Corp., Milwaukee, Wis.  
Parsons Co., The, Newton, Iowa.

## BALLAST. (Railroad.)

American Limestone Co., Knoxville, Tenn.  
Birmingham Slag Co., Birmingham, Ala.

## BANKERS AND BROKERS.

Adair Realty & Trust Co., Atlanta, Ga.  
Allyn & Co., A. C., Chicago, Ill.  
Burr & Co., George H., New York.  
Caldwell & Co., Nashville, Tenn.  
Electric Bond & Share Co., New York.  
Miller & Co., Inc., G. L., Atlanta, Ga.  
Nureen & Co., John, Chicago, Ill.  
Otis & Co., Cleveland, Ohio.  
Provident Savings Bank & Trust Co., Cincinnati, Ohio.  
Williams, Jr. & Co., Roger B., New York.

## BANKS.

Baltimore Commercial Bank, Balto., Md.  
Bank of Alabama, The, Easley, Ala.  
Bank of New York & Trust Co., N. Y.  
First National Bank, Richmond, Va.  
Fourth National Bank, Macon, Ga.  
Maryland Trust Co., Baltimore, Md.

## BARGES. (Steel.)

American Bridge Co., New York, N. Y.

## BAR BENDERS.

Koehring Co., Milwaukee, Wis.

## BAR CUTTERS.

Koehring Co., Milwaukee, Wis.

## BARGES. (Steel.)

Midland Barge Co., Midland, Pa.

## BAR IRON. (Refined and Galvanized.)

Republic Iron & Steel Co., Youngstown, O.

## BARS. (Steel, Rounds, Flats, Hexagon and Squares.)

Carnegie Steel Co., Pittsburgh, Pa.  
Concrete Steel Co., New York, N. Y.

De Cou Co., Richard, Philadelphia, Pa.  
Gulf States Steel Co., Birmingham, Ala.  
Knoxville Iron Co., Knoxville, Tenn.  
Laclede Steel Co., St. Louis, Mo.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Virginia Bridge & Iron Co., Roanoke, Va.  
West Virginia Rail Co., Huntington, W. Va.

## BARS, WIRE, WIRE FABRIC, STEEL ETC. (For Reinforced Concrete.)

Concrete Steel Co., New York, N. Y.  
Jones & Laughlin Steel Corp., Pittsburgh.  
National Steel Fabric Co., Pittsburgh, Pa.  
Oliver Iron & Steel Corp., Pittsburgh, Pa.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
Southern Steel Products Co., Richmond, Va.  
Trucon Steel Co., Youngstown, O.  
West Virginia Rail Co., Huntington, W. Va.  
Wrenn & Co., O. Z., Charlotte, N. C.

## BATTERIES. (Storage.)

Electric Storage Battery Co., Phila., Pa.  
Pre-O-Lite Co., Inc., The, New York.

## BEAMS, CHANNELS AND ANGLES.

Belmont Iron Works, Philadelphia, Pa.  
Carnegie Steel Co., Pittsburgh, Pa.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Virginia Bridge & Iron Co., Roanoke, Va.

## BEARINGS. (Ball.)

Marlin-Rockwell Corp., Jamestown, N. Y.

## BEARINGS. (Line Shaft.)

Ward's Sons Co., T. B., Chambersburg, Pa.

## BEARINGS. (Roller.)

Hyatt Roller Bearing Co., Newark, N. J.

## BELT CEMENT.

Reed & Ducker, Memphis, Tenn.  
Schieren Co., Chas. A., New York.

## BELT CONVEYORS.

Barber-Greene Co., Aurora, Ill.  
Halsey Mfg. Co., Inc., Geo., New York.  
Link-Belt Co., Philadelphia, Pa.  
Robins Conveying Belt Co., New York.  
Webster Mfg. Co., The, Chicago, Ill.

## BELT DRESSING.

Dixon Crucible Co., Jos., Jersey City, N. J.  
Goodrich Rubber Co., The B. F., Akron, O.  
Reed & Ducker, Memphis, Tenn.  
Schieren Co., Chas. A., New York.

## BELTING. (Chain.)

Chain Belt Co., Milwaukee, Wis.  
Link-Belt Co., Philadelphia, Pa.  
Morse Chain Co., Itasca, N. Y.

## BELTING. (Conveyor.)

Goodrich Rubber Co., The B. F., Akron, O.  
New York Belting & Packing Co., New York, N. Y.

## BELTING. (Leather, Canvas, Rubber.)

Baltimore Belting Co., Baltimore, Md.  
Chesapeake Belting Co., Baltimore, Md.  
Druid Oak Belting Co., Inc., Balto., Md.  
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New York Belting & Packing Co., New York, N. Y.  
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McCracken Machinery Co., Sioux City, Ia.

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Baltimore Tube Co., Inc., Baltimore, Md.

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Long Co., The M. A., Baltimore, Md.  
Robinson & Co., Inc., Dwight P., New York, N. Y.  
Shaw, J. S., Atlanta, Ga.  
Southeastern Construction Co., Charlotte, N. C.  
Stone & Webster, Inc., Boston, Mass.  
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Krebs Co., A. J., Atlanta, Ga.  
Long Co., The M. A., Baltimore, Md.  
Robinson & Co., Inc., Dwight P., New York, N. Y.  
Shaw, J. S., Atlanta, Ga.  
Southeastern Construction Co., Charlotte, N. C.  
Stone & Webster, Inc., Boston, Mass.  
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McMyler-Interstate Co., The, Cleveland, O.  
Robins Conveying Belt Co., New York, N. Y.  
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.  
Universal Crusher Co., Cedar Rapids, Ia.  
Universal Road Machinery Co., Kingston, N. Y.  
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Brown Hoisting Machinery Co., Cleveland, Ohio.  
Byers Machine Co., The, Ravenna, O.  
Erie Steam Shovel Co., Erie, Pa.  
Industrial Works, Bay City, Mich.  
Link-Belt Co., Philadelphia, Pa.  
McMyler-Interstate Co., The, Cleveland, O.  
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Northwest Engineering Co., Chicago, Ill.  
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Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.  
Wright Mfg. Co., Lisbon, Ohio.

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Industrial Works, Bay City, Mich.

**CRANES. (Electric Traveling.)**  
Box & Co., Inc., Alfred, Philadelphia, Pa.  
Chesapeake Iron Works, Baltimore, Md.  
Harnischfeger Corp., Milwaukee, Wis.  
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

**CRANES. (Full Circle, Steam and Electric.)**  
Marion Steam Shovel Co., The, Marion, O.

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Brown Hoisting Machinery Co., Cleveland, Ohio.  
Industrial Works, Bay City, Mich.  
Orton & Steinbrenner Co., Chicago, Ill.

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Brown Hoisting Machinery Co., Cleveland, Ohio.  
Harnischfeger Corp., Milwaukee, Wis.  
Industrial Works, Bay City, Mich.  
Northwest Engineering Co., Chicago, Ill.

**CRANES. (Jib.)**  
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

**CRANES. (Locomotive.)**  
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Atlanta Loco. & Eqt. Co., Atlanta, Ga.  
Brown Hoisting Machinery Co., Cleveland, Ohio.

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Northwest Engineering Co., Chicago, Ill.  
Universal Crane Co., The, Cleveland, O.

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Chesapeake Iron Works, Baltimore, Md.  
Harrington Co., The, Philadelphia, Pa.  
Reading Chain & Block Corp., Reading, Pa.  
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Savannah Creosoting Co., Inc., Savannah, Ga.  
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American Creosoting Co., Inc., Louisville, Ky.  
Eppinger & Russell Co., New York, N. Y.  
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- DRY KILNS.**  
Moore Dry Kiln Co., Jacksonville, Fla.
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Stewart Iron Works Co., Cincinnati, O.  
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Eagle Wagon Works, The, Auburn, N. Y.  
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Nussbaum & Co., V. M., Ft. Wayne, Ind.  
O'Brien Machinery Co., The, Phila., Pa.  
Power Machinery Exchange, Jersey City, N. J.  
Randle Machinery Co., The, Cincinnati, O.  
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Benjamin Electric Mfg. Co., Chicago, Ill.  
National Elec. Light Assn., New York.
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Hendrick Mfg. Co., Carbondale, Pa.  
Mullins Body Corp., Salem, Ohio.
- ELEVATOR CABLES.**  
Leschen & Sons Rope Co., A., St. Louis, Mo.
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Dufrut, Baggett & Co., Baltimore, Md.
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American Elevator & Machine Co., Inc., Louisville, Ky.  
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Moffatt Machinery Mfg. Co., Charlotte, N. C.  
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Maury & Gordon, Chicago, Ill.  
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Robert & Co., Inc., Atlanta, Ga.  
Sanderson & Porter, New York, N. Y.  
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Fay, Spofford & Thorndike, Boston, Mass.  
Freeland, Roberts & Co., Nashville, Tenn.  
Fugate Engineering Co., H. C., West Palm Beach, Fla.  
Gardner & Howe, Memphis, Tenn.  
Greiner & Co., J. E., Baltimore, Md.  
Hardaway Contracting Co., Columbus, Ga.  
Howerton Engineering Co., Asheville, N. C.  
Luten, Daniel B., Indianapolis, Ind.  
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Robinson & Co., Inc., Dwight P., New York, N. Y.  
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Meigs, Bassett & Slaughter, Phila., Pa.  
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Pittsburgh Testing Lab., Pittsburgh, Pa.  
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Camp & Associates, E. V., Atlanta, Ga.  
Carolina Engineering Co., Charlotte, N. C.  
Carr & McFadden, Inc., West Palm Beach, Fla.  
Clark & Krebs, Charleston, W. Va.  
Day & Zimmermann, Inc., Phila., Pa.  
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Batter & Kipp, Inc., Chicago, Ill.  
Black, McKenney & Stewart, Wash., D. C.  
Bylesby Engineering & Management Corp., Chicago, Ill.  
Cooper & Co., Hugh L., New York, N. Y.  
Gardner & Howe, Memphis, Tenn.  
Hardaway Contracting Co., Columbus, Ga.  
Harper & Taylor, Inc., Philadelphia, Pa.  
Lee, William S., Charlotte, N. C.  
Main, Chas. T., Boston, Mass.  
Robert & Co., Inc., Atlanta, Ga.  
Robinson & Co., Inc., Dwight P., New York, N. Y.  
Srinne & Co., J. E., Greenville, S. C.  
Tucker & Laxton, Charlotte, N. C.  
Weller, Francis R., Washington, D. C.  
Wells, James P., Rochester, N. Y.  
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Whitner & Co., Inc., Wm. C., Richmond, Va.
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Bridgeman & Allen, Inc., West Palm Beach, Fla.  
Butler, Barnett & Taylor, West Palm Beach, Fla.  
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Fuller & McClintock, New York, N. Y.  
Hills Co., George B., Jacksonville, Fla.  
Ludlow Engineers, Winston-Salem, N. C.  
McGee, E. C., Monroe, La.  
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Wells, James P., Rochester, N. Y.
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Selders, Inc., Seth, Chicago, Ill.
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Cooper & Co., Hugh L., New York, N. Y.  
Crocker-Wheeler Electric Manufacturing Co., Ampere, N. J.  
Day & Zimmermann, Inc., Phila., Pa.  
Fugate Engineering Co., H. C., West Palm Beach, Fla.  
Lee, William S., Charlotte, N. C.  
Michael & Bivens, Inc., Gastonia, N. C.  
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Reed, W. Edgar, Pittsburgh, Pa.  
Robinson & Co., Inc., Dwight P., New York, N. Y.  
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Stone & Webster, Inc., Boston, Mass.  
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Wiley & Wilson, Lynchburg, Va.
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Batter & Kipp, Inc., Chicago, Ill.  
Bylesby Engineering & Management Corp., Chicago, Ill.  
Camp & Associates, E. V., Atlanta, Ga.  
Cooper & Co., Hugh L., New York, N. Y.  
Day & Zimmermann, Inc., Phila., Pa.  
Fannon, Ralph W., Green Bay, Wis.  
Ford, Bacon & Davis, Inc., New York.  
Harper & Taylor, Inc., Philadelphia, Pa.  
Lee, William S., Charlotte, N. C.  
Long Co., The, M. A., Baltimore, Md.  
Markel Co., The, Atlanta, Ga.  
Muller, Arthur L., Kansas City, Mo.  
Ophuls & Hill, Inc., New York.  
Pender, W. R., Houston, Texas.  
Prack, Bernard H., Pittsburgh, Pa.  
Reed, W. Edgar, Pittsburgh, Pa.  
Robinson & Co., Inc., Dwight P., New York, N. Y.  
Sanderson & Porter, New York, N. Y.  
Schaup & Son, Chas. E., Harrisburg, Pa.  
Scodfee Engineering Co., Phila., Pa.  
Stone & Webster, Inc., Boston, Mass.  
Tucker & Laxton, Charlotte, N. C.  
Weller, Francis R., Washington, D. C.  
White Engineering Corp., J. G., New York.  
White Co., Gilbert C., Durham, N. C.
- ENGINEERS. (Gas.)**  
Bylesby Engineering & Management Corp., Chicago, Ill.  
Ford, Bacon & Davis, Inc., New York.  
McGee, E. C., Monroe, La.  
U. G. I. Contracting Co., The, Phila., Pa.
- ENGINEERS. (Geological.)**  
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De, Roland B., Washington, D. C.  
DeKalb Courtenay, University Alabama.  
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Wiley & Wilson, Lynchburg, Va.

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Fuller & McClintock, New York, N. Y.  
Schau & Son, Chas. E., Harrisburg, Pa.  
Wells, James P., Rochester, N. Y.  
Williamson, S. B., Charlottesville, Va.

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Rylsby Engineering & Management  
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ington, D. C.  
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Mees & Mees, Charlotte, N. C.  
Platt, William M., Durham, N. C.  
Reed, W. Edgar, Pittsburgh, Pa.  
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Sanderson & Porter, New York, N. Y.  
Seofield Engineering Co., Phila., Pa.  
Sirtine & Co., J. E., Greenville, S. C.  
Tucker & Laxton, Charlotte, N. C.  
U. G. I. Contracting Co., The, Phila., Pa.  
Weller, Francis R., Washington, D. C.  
Wells, James P., Rochester, N. Y.  
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Whitner & Co., Inc., Wm. C., Rich-  
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Fay, Spofford & Thorndike, Boston, Mass.  
Gardner & Howe, Memphis, Tenn.  
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Hebbelwhite Co., The, Buena Vista, Fla.  
Hills Co., George B., Jacksonville, Fla.  
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McGee, E. C., Monroe, La.  
Main, Chas. T., Boston, Mass.  
Mees & Mees, Charlotte, N. C.  
Mount, W. D., Lynchburg, Va.  
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Ophuls & Hill, Inc., New York.  
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Ga.  
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Robinson & Co., Inc., Dwight P., New  
York, N. Y.  
Sanderson & Porter, New York, N. Y.  
Seofield Engineering Co., Phila., Pa.  
Shaw, Jos. E., Atlanta, Ga.  
Sirtine & Co., J. E., Greenville, S. C.  
Stone & Webster, Inc., Boston, Mass.  
Sutton & Routh, Fort Lauderdale, Fla.  
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Freeling & Robertson, Inc., Richmond, Va.  
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Laurie, Inc., Robert H., New York, N. Y.  
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Southwestern Laboratories, Fort Worth, Tex.  
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Mees & Mees, Charlotte, N. C.  
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Beach, Fla.  
Camp & Associates, E. V., Atlanta, Ga.  
Carr & McFadden, Inc., West Palm  
Beach, Fla.  
Clark & Krebs, Charleston, W. Va.  
Dow & Smith, New York, N. Y.  
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Beach, Fla.

Hills Co., George B., Jacksonville, Fla.  
Howerton Engineering Co., Asheville, N. C.  
Klyce & Harub, Nashville, Tenn.  
Knowles, Inc., Morris, Pittsburgh, Pa.  
Linville, Ralph K., Danville, Va.  
Ludlow Engineers, Winston-Salem, N. C.  
McCrory Co., The J. B., Atlanta, Ga.  
McGee, E. C., Monroe, La.  
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Camp & Associates, E. V., Atlanta, Ga.  
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Ludlow Engineers, Winston-Salem, N. C.  
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Spiker & Loe, Atlanta, Ga.  
Steel and Leiby, Knoxville, Tenn.  
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Beach, Fla.  
Camp & Associates, E. V., Atlanta, Ga.

Carolina Engineering Co., Charlotte, N. C.  
Carr & McFadden, Inc., West Palm  
Beach, Fla.  
Conard & Busby, Burlington, N. J.  
Edwards, L. V., Winston-Salem, N. C.  
Ford, Bacon & Davis, Inc., New York.  
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Fuller & McClintock, New York, N. Y.  
Hardaway Contracting Co., Columbus, Ga.  
Hawley & Co., Inc., Chas. B., Wash-  
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Hills Co., George B., Jacksonville, Fla.  
Howerton Engineering Co., Asheville, N. C.  
Klyce & Harub, Nashville, Tenn.  
Knowles, Inc., Morris, Pittsburgh, Pa.  
Linville, Ralph K., Danville, Va.  
Ludlow Engineers, Winston-Salem, N. C.  
Maurry & Gordon, Chicago, Ill.  
Mees & Mees, Charlotte, N. C.  
Newkirk, A. D., Winter Haven, Fla.  
Platt, William M., Durham, N. C.  
Sanderson & Porter, New York, N. Y.  
Schaup & Son, Chas. E., Harrisburg, Pa.  
Spoon & Lewis, Greensboro, N. C.  
Totten, Inc., Robert L., Birmingham, Ala.  
Tucker & Laxton, Charlotte, N. C.  
White Engineering Corp., J. G., New York.  
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Parker, James L., Charleston, S. C.  
Spiker & Loe, Atlanta, Ga.  
Sutton & Routh, Fort Lauderdale, Fla.  
Turner, C. A. P., Minneapolis, Minn.  
Virginia Bridge & Iron Co., Roanoke, Va.

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Anderson Engine & Foundry Co., Ander-  
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Bessemer Gas Engine Co., Grove City, Pa.  
Chicago Pneumatic Tool Co., New York.  
Fairbanks, Morse & Co., Chicago, Ill.  
Foss Gas Engine Co., The, Springfield, O.  
Ingersoll-Rand Co., New York, N. Y.  
McMillan, A., Chicago, Ill.  
National Transit Pump & Machine Co.,  
Oil City, Pa.  
Otto Engine Works, Phila., Pa.  
Power Mfg. Co., The, Marion, O.  
Superior Gas Engine Co., Springfield, O.  
Tipton Engine Works, Austin, Tex.

**ENGINES. (Steam.)**  
Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Brownell Co., The, Dayton, Ohio.  
Cole Mfg. Co., B. D., Newnan, Ga.  
Erie City Iron Works, Erie, Pa.  
Erie Pump & Engine Works, Medina, N.Y.  
Lefell & Co., The, James, Springfield, O.  
Lombard Iron Works & Supply Co.,  
Augusta, Ga.  
McMillan, A., Chicago, Ill.  
Morris Machine Works, Baldwinville, N.Y.  
Murray Iron Works Co., Burlington, Ia.  
National Transit Pump & Machine Co.,  
Oil City, Pa.  
Orr & Sembover, Inc., Reading, Pa.  
Schnefeld's Iron Works, Macon, Ga.

**ENVELOPES.**  
Smith Co., The Oscar T., Baltimore, Md.  
Young & Selden Co., Baltimore, Md.

**EXCAVATING MACHINERY.**  
Bay City Dredge Works, Bay City, Mich.  
Bucyrus Co., South Milwaukee, Wis.  
Clyde Iron Works Sales Co., Duluth, Minn.

Harnischfeger Corp., Milwaukee, Wis.  
Hayward Co., The, New York, N. Y.  
Insley Mfg. Co., Indianapolis, Ind.  
Monaghan Machine Co., Chicago, Ill.  
Northwest Engineering Co., Chicago, Ill.  
Osagood Co., The, Marion, Ohio.  
Owen Bucket Co., The, Cleveland, Ohio.  
Parsons Co., The, Newton, Iowa.  
Smith Co., The T. L., Milwaukee, Wis.  
Thew Shovel Co., The, Lorain, O.

**EXCAVATORS. (Cableway Dragline.)**  
Bucyrus Co., South Milwaukee, Wis.  
Byers Machine Co., The, Ravenna, O.  
Lidgerwood Mfg. Co., New York, N. Y.  
Monaghan Machine Co., Chicago, Ill.  
Northwest Engineering Co., Chicago, Ill.

**EXCAVATORS. (Clamshell and Orange  
Peel.)**  
Marion Steam Shovel Co., The, Marion, O.

**EXCAVATORS. (Trench.)**  
Bay City Dredge Works, Bay City, Mich.  
Erie Steam Shovel Co., Erie, Pa.  
Harnischfeger Corp., Milwaukee, Wis.  
Hayward Co., The, New York, N. Y.  
Marion Steam Shovel Co., The, Marion, O.  
Monaghan Machine Co., Chicago, Ill.  
Parsons Co., The, Newton, Iowa.

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Abendroth & Root Mfg. Co., New York.  
American Spiral Pipe Works, Chicago, Ill.  
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Pioneer Asphalt Co., Lawrenceville, Ill.

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Wilmington, Del.

**FACTORY MANAGEMENT SYSTEMS.**  
Ernst & Ernst, New York, N. Y.

**FANS. (Exhaust.)**  
Sterling Blower Co., Hartford, Conn.

**FEED-WATER HEATERS AND PURI-  
FIERS.**  
American Water Softener Co., Phila., Pa.  
Brownell Co., The, Dayton, Ohio.  
Casey-Hedges Co., Chattanooga, Tenn.  
Erie City Iron Works, Erie, Pa.

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Century Fence Co., Pascagoula, Miss.  
Cyclone Fence Co., Waukegan, Ill.  
Gulf States Steel Co., Birmingham, Ala.  
Stewart Iron Works Co., Cincinnati, O.  
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Century Fence Co., Pascagoula, Miss.  
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Dufur & Co., Baltimore, Md.  
Stewart Iron Works Co., Cincinnati, O.

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Raymond Bros. Impact Pulveriser Co.,  
Chicago, Ill.  
Standard Cast Iron Pipe & Foundry Co.,  
Atlanta, Ga.

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Nicholson File Co., Providence, R. I.

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International Filter Co., Chicago, Ill.  
Roberts Filter Mfg. Co., Darby (Phila.),  
Pa.

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Miller & Co., Inc., G. L., Atlanta, Ga.

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New York.  
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Birmingham Clay Products Co., Birming-  
ham, Ala.  
Cambria Clay Products Co., Blackfork, O.  
Dixie Fireproofing Co., Macon, Ga.  
Gautier & Co., J. H., Jersey City, N. J.  
Portsmouth Refractories Co., Portsmouth, O.  
Robinson Clay Product Co., Akron, O.  
Savage Mountain Fire Brick Co., Frost-  
burg, Md.  
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Va.  
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Walsh Fire Clay Products Co., St. Louis,  
Mo.  
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Randle Machinery Co., The, Cincinnati, O.  
Stewart (Electric), S. J., New Orleans, La.
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Orr & Semberow, Inc., Reading, Pa.  
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**American Rolling Mill Co., Middletown, O.**
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- JOIST HANGERS.**  
**Van Dorn Iron Works Co., Cleveland, O.**
- JOINTS. (Pipe.)**  
**Leadite Co., The Philadelphia, Pa.**
- KETTLES. (Pavers and Roofers.)**  
**Conery & Co., Inc., Phila., Pa.**  
**Honhorst Co., The Jos., Cincinnati, Ohio.**  
**Littleford Bros., Cincinnati, Ohio.**
- LABORATORY EQUIPMENT.**  
**Alberene Stone Co., New York, N. Y.**
- LACE LEATHER.**  
**Schieren Co., Chas. A., New York.**
- LADDERS. (Rolling.)**  
**Coburn Trolley Track Mfg. Co., Holyoke, Mass.**  
**Myers & Bro. Co., The F. E., Ashland, O.**
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**Mullins Body Corp., Salem, Ohio.**
- LADLES. (For Open Hearth & Blast Furnaces.)**  
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- LATCHES. (Pine Exit.)**  
**Vonnegut Hardware Co., Indianapolis, Ind.**
- LAUNDRY TUBS AND TRAYS**  
**Alberene Stone Co., New York, N. Y.**
- LATHES. (Polishing and Buffing.)**  
**Cisco Machine Tool Co., Cincinnati, Ohio.**
- LATH. (Metal.)**  
**Edwards Mfg. Co., The Cincinnati, O.**
- LAWN FURNITURE. (Wire.)**  
**Dufur & Co., Baltimore, Md.**  
**Dufur, Baggott & Co., Baltimore, Md.**
- LEADITE.**  
**Leadite Co., The Philadelphia, Pa.**
- LENIX DRIVES.**  
**Smith & Co., F. L., New York, N. Y.**
- LIGHT CONTRACTORS.**  
**Milburn Co., The Alexander, Balto., Md.**
- LIGHTING. (Factory and Mill.)**  
**Benjamin Electric & Manufacturing Co., Chicago, Ill.**  
**National Elec. Light Assoc., New York.**
- LIGHTING FIXTURES. (Electric.)**  
**Baltimore Gas Light Co., Balto., Md.**  
**Benjamin Electric & Manufacturing Co., Chicago, Ill.**  
**National Screw and Manufacturing Co., Cleveland, Ohio.**
- LINOLEUM. (Battleship.)**  
**Bonded Floors Co., Inc., Philadelphia, Pa.**
- LITHOGRAPHERS AND ENGRAVERS.**  
**Security Bank Note Co., Phila., Pa.**  
**Smith Co., The Oscar T., Balto., Md.**  
**Young & Selden Co., Baltimore, Md.**
- LOADING AND UNLOADING MACHINERY. (Portable.)**  
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**Hais Mfg. Co., Inc., Geo., New York.**  
**McMyler-Interstate Co., The Cleveland, O.**  
**Northwest Engineering Co., Chicago, Ill.**  
**Smith Co., The T. L., Milwaukee, Wis.**
- LOCKERS. (Steel.)**  
**Edwards Mfg. Co., The Cincinnati, O.**
- LOCOMOTIVES.**  
**American Locomotive Co., New York City.**  
**Hyman-Michaels Co., Chicago, Ill.**
- LOCOMOTIVES. (Gasoline.)**  
**Fate-Root-Heath Co., The Plymouth, O.**  
**Hadfield-Penfield Steel Co., Bucyrus, O.**  
**Milwaukee Locomotive Mfg. Co., Milwaukee, Wis.**
- LOCOMOTIVES. (Industrial.)**  
**Adamson Motor Co., Birmingham, Ala.**  
**American Locomotive Co., New York City.**  
**Atlanta Loco. & Eqt. Co., Atlanta, Ga.**  
**Climax Mfg. Co., Corry, Pa.**  
**Fate-Root-Heath Co., The Plymouth, O.**  
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**Adamson Motor Co., Birmingham, Ala.**  
**Poliakoff, R., New York.**
- LOCOMOTIVES. (Railway.)**  
**Georgia Car & Loco. Co., Atlanta, Ga.**  
**Poliakoff, R., New York.**  
**Sherwood, E. C., New York, N. Y.**  
**Southern Iron & Equipment Co., Atlanta, Ga.**
- LOGGING BLOCKS.**  
**Lidgerwood Mfg. Co., New York, N. Y.**
- LOGGING MACHINERY.**  
**Clyde Iron Works Sales Co., Duluth, Minn.**
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**Veeder Mfg. Co., Hartford, Conn.**
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**Dixon Crucible Co., Jos., Jersey City, N. J.**
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**Lunkenheimer Co., The Cincinnati, Ohio.**  
**McCullough Mfg. Co., Minneapolis, Minn.**
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**Southern Cypress Mfrs. Association, New Orleans, La.**
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**American Creosote Works, Inc., New Orleans, La.**  
**American Creosoting Co., Inc., Louisville, Ky.**  
**Eppinger & Russell Co., New York, N. Y.**  
**Gulf States Creosoting Co., Hattiesburg, Miss.**  
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**Eastman, Gardiner & Co., Laurel, Miss.**  
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**Southern Cypress Mfrs. Association, New Orleans, La.**
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**Bacon & Sons, A. S., Savannah, Ga.**  
**Eastman, Gardiner & Co., Laurel, Miss.**  
**Exchange Sawmills Sales Co., Kansas City, Mo.**  
**Great Southern Lumber Co., Bogalusa, La.**  
**Hull Lumber Co., C. G., Laurel, Miss.**  
**Industrial Lumber Co., Elizabeth, La.**  
**Long-Bell Lumber Co., Kansas City, Mo.**
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**Herfurth Engine & Machinery Co., Alexandria, Va.**  
**Hiter's Sons Co., Henry A., Phila., Pa.**  
**Industrial Power Equip. Co., Balto., Md.**  
**Klein & Co., Nathan, New York, N. Y.**  
**Lehman, Chas. T., Birmingham, Ala.**  
**McMillan, A., Chicago, Ill.**  
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**Marine Metal & Supply Co., New York.**  
**Martin Mch'y. Co., E. A., Joplin, Mo.**  
**Morrison Co., Hackley, Richmond, Va.**  
**Nashville Industrial Corp., Old Hickory, Tenn.**  
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**Pipe & Contractors' Supply Co., New York.**  
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**Prentiss & Co., Inc., Henry, New York.**  
**Randle Machinery Co., The Cincinnati, O.**  
**Ryerson & Son, Inc., Jos. T., St. Louis and New York.**  
**Sales Corp., The Alexandria, Va.**  
**Seyfert's Sons, Inc., L. F., Phila., Pa.**  
**Stewart (Electric), S. J., New Orleans, La.**  
**Tart, Inc., Louis A., Baltimore, Md.**  
**Toomey, Inc., Frank, Philadelphia, Pa.**  
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- MANUFACTURING SITES.**  
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**Alexandria Chamber of Commerce, Alexandria, Va.**  
**Arkansas Light & Power Co., Pine Bluff, Ark.**  
**Atlanta & West Point R. R., Atlanta, Ga.**  
**Austin Co., The Cleveland, O.**  
**Bureau of Immigration, Dept. of Agriculture, Tallahassee, Fla.**  
**Central of Georgia Rwy., Savannah, Ga.**  
**Columbus Elec. & Power Co., Columbus, Ga.**  
**Columbus Ga., New Industries Committee.**  
**Daytona Beach Chamber of Commerce, Daytona Beach, Fla.**  
**Georgia Railway & Power Co., Atlanta, Ga.**  
**Hammond & Co., Brooksville, Fla.**  
**Hendersonville Ch. of Com., Hendersonville, N. C.**  
**Louisiana Power & Light Co., Sterling, La.**  
**Mississippi Power & Light Co., Jackson, Miss.**  
**Missouri Pacific R. R. Co., St. Louis, Mo.**  
**Mobile Cham. of Commerce, Mobile, Ala.**  
**Model Land Company of the Flagler System, St. Augustine, Fla.**  
**Savannah Board of Trade, Savannah, Ga.**  
**Seaboard Air Line Railway Co., Savannah, Ga.**  
**Sheffield-Tusculum Chamber of Commerce, Sheffield, Ala.**  
**Southern Railway System, Wash., D. C.**  
**Tennessee Electric Power Co., Chattanooga, Tenn.**  
**Valdosta Cham. of Com., Valdosta, Ga.**
- MARQUEE.**  
**Probert Sheet Metal Co., Covington, Ky.**
- MASTIC CONSTRUCTION. (Asphalt.)**  
**Rulon, Ralph V., Philadelphia, Pa.**
- METAL-CUTTING MACHINES.**  
**Atkins & Co., Inc., E. C., Indianapolis, Ind.**
- METAL WORKING MACHINERY.**  
**Bliss Co., E. W., Brooklyn, N. Y.**
- METERS. (Electric.)**  
**Piedmont Electric Co., Asheville, N. C.**
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**Durant Mfg. Co., Milwaukee, Wis.**
- METERS. (Venturi and Pitot Tube Types.)**  
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**Ingersoll-Rand Co., New York, N. Y.**  
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**American Cement Machine Co., Inc., Keokuk, Iowa.**  
**Blystone Mfg. Co., Cambridge Springs, Pa.**  
**Chain Belt Co., Milwaukee, Wis.**  
**Dunning & Boschert Press Co., Inc., Syracuse, N. Y.**  
**Koehring Co., Milwaukee, Wis.**  
**Orr & Seabower, Inc., Reading, Pa.**  
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**Standard Scale & Supply Corp., Pittsburgh, Pa.**
- MIXERS. (Hot.)**  
**Koehring Co., Milwaukee, Wis.**
- MORTAR COLORS.**  
**Chattanooga Paint Co., Chattanooga, Tenn.**
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**Fairbanks, Morse & Co., Chicago, Ill.**  
**Sturtevant Co., E. F., Hyde Park, Boston, Mass.**  
**Westinghouse Electric & Mfg. Co., E. Pittsburgh, Pa.**
- MOTOR TRUCKS.**  
**Ford Motor Co., Detroit, Mich.**  
**General Motors Truck Co., Pontiac, Mich.**  
**International Harvester Co. of America, Inc., Chicago, Ill.**
- MOTOR-TRUCK TIRES.**  
**U. S. Rubber Co., New York, N. Y.**
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**American Steel & Wire Co., Balto., Md.**
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**Reading Iron Co., Reading, Pa.**
- NAILS AND SPIKES.**  
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- NAME PLATES. (For Bridges.)**  
**Egyptian Iron Works, Murphysboro, Ill.**
- NITROGEN GAS.**  
**Linde Air Products Co., The New York.**
- NUTS. (Cold Punched.)**  
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**Bowen Products Corp., Auburn, N. Y.**  
**Lunkenheimer Co., The Cincinnati, Ohio.**
- OIL FILTERS.**  
**Burt Mfg. Co., The Akron, Ohio.**
- OIL, FUEL AND GAS.**  
**Gulf Refining Co., Pittsburgh, Pa.**
- OILING SYSTEMS.**  
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**Burt Mfg. Co., The Akron, Ohio.**
- OILS. (Lubricating, etc.)**  
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- OPPORTUNITIES. (Industrial, Agricultural and Commercial.)**  
**Alabama Power Co., Birmingham, Ala.**  
**Arkansas Light & Power Co., Pine Bluff, Ark.**  
**Atlanta & West Point R. R., Atlanta, Ga.**  
**Bureau of Immigration, Dept. of Agriculture, Tallahassee, Fla.**  
**Central of Georgia Rwy., Savannah, Ga.**  
**Columbus Elec. & Power Co., Columbus, Ga.**  
**Columbus Ga., New Industries Committee.**  
**Daytona Beach Chamber of Commerce, Daytona Beach, Fla.**  
**Georgia Railway & Power Co., Atlanta, Ga.**  
**Hendersonville Ch. of Com., Hendersonville, N. C.**  
**Louisiana Power & Light Co., Sterling, La.**  
**Mississippi Power & Light Co., Jackson, Miss.**  
**Missouri Pacific R. R. Co., St. Louis, Mo.**  
**Mobile Cham. of Commerce, Mobile, Ala.**  
**Model Land Company of the Flagler System, St. Augustine, Fla.**  
**Savannah Board of Trade, Savannah, Ga.**  
**Seaboard Air Line Railway Co., Savannah, Ga.**  
**Sheffield-Tusculum Chamber of Commerce, Sheffield, Ala.**  
**Southern Railway System, Wash., D. C.**  
**Tennessee Electric Power Co., Chattanooga, Tenn.**  
**Valdosta Cham. of Com., Valdosta, Ga.**
- ORE-WASHING MACHINERY.**  
**McLanahan-Stone Machine Co., Hollidaysburg, Pa.**

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Sneed Architectural Iron Works, Louis-  
ville, Ky.  
Stewart Iron Works Co., Cincinnati, O.  
Van Dorn Iron Works Co., Cleveland, O.

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Linde Air Products Co., The, New York.

**OXYGEN, GAS.**

Linde Air Products Co., The, New York.  
Prest-O-Lite Co., Inc., The, New York.

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Goodrich Rubber Co., The E. F., Akron, O.  
Jenkins Bros., New York, N. Y.  
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Philadelphia, Pa.  
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Simsboro Sons, Inc., L., New York.

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Binks Spray Equipment Co., Chicago, Ill.

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Vonnegut Hardware Co., Indianapolis, Ind.

**PAPER-MAKING MACHINERY.**

Pusey & Jones Co., The, Wilmington, Del.

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Kinross Mfg. Co., The, Columbus, Ohio.  
Lupton's Sons Co., David, Phila., Pa.  
Swedish Venetian Blind Co., New York.

**PARTITIONS.** (Sectionfold, Rolling,

Wood.)  
Wilson Corp., The J. G., New York.

**PARTITIONS.** (Toilet, Shower and Urinal.)

Alberens Stone Co., New York, N. Y.

**PATENT ATTORNEYS.**

Chandler & Chandler, Washington, D. C.  
Coleman, Watson & Co., Washington, D. C.  
Evans & Co., Victor J., Washington, D. C.

**PATTERNS.** (Drawing, etc.)

Haas Pattern Co., A. W., Atlanta, Ga.

**PAVING BLOCKS.** (Crescoted Wood.)

Southern Wood Preserving Co., Atlanta, Ga.

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National Paving Brick Mfrs. Association,  
Cleveland, Ohio.

**PAVING GUARDS.** (Steel.)

Godwin Co., Inc., W. S., Baltimore, Md.

**PAVING MIXERS.** (Concrete.)

American Cement Machine Co., Inc., Keokuk, Iowa.  
Chain Belt Co., Milwaukee, Wis.  
Kochring Co., Milwaukee, Wis.  
Smith Co., The T. L., Milwaukee, Wis.  
Standard Scale & Supply Corp., Pitts-  
burgh, Pa.

**PAVING PLANTS.** (Asphalt.)

Cumner & Son Co., F. D., Cleveland, O.  
Kinney Mfg. Co., Boston, Mass.  
Smith Co., The T. L., Milwaukee, Wis.  
Warren Brothers Co., Boston, Mass.

**PAVING TOOLS.**

Littleford Bros., Cincinnati, O.

**PENSTOCKS.**

Chicago Bridge & Iron Works, Atlanta, Ga.  
Petroleum Iron Works Co., Sharon, Pa.  
Pittsburgh-Dos Moines Steel Co., Pitts-  
burgh, Pa.  
Smith Co., S. Morgan, York, Pa.

**PERFORATED METAL.**

Chicago Perforating Co., Chicago, Ill.  
Erdle Perforating Co., Rochester, N. Y.  
Harrington & King Perforating Co., Chi-  
cago, Ill.  
Hendrick Mfg. Co., Carbondale, Pa.  
Manhattan Perforated Metal Co., Inc.,  
New York, N. Y.  
Mundt & Sons, Charles, Jersey City, N. J.  
Wickwire Spencer Steel Co., New York.

**PETROLEUM REFINERS.**

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burg, Pa.

**PHOTO-ENGRAVERS.**

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Hammond Iron Co., Birmingham, Ala.  
Republic Iron & Steel Co., Youngstown, O.  
Sloss-Sheffield Steel & Iron Co., Birming-  
ham, Ala.  
Tennessee Coal, Iron & Railroad Co.,  
Birmingham, Ala.

**PILE DRIVERS.**

McMyler-Interstate Co., The, Cleveland, O.

**PILING.** (Crescoted.)

American Crescote Works, Inc., New  
Orleans, La.  
American Crescoting Co., Inc., Louis-  
ville, Ky.  
Savannah Crescoting Co., Inc., Savannah,  
Ga.

**PILLOW BLOCKS.**

'Goldens' Foundry & Machine Co., Colum-  
bus, Ga.

**PIPE.**

Albert & Davidson Pipe Corp., Brooklyn,  
N. Y.  
Albert Pipe Supply Co., Inc., Brooklyn,  
N. Y.  
Central Pipe & Supply Co., Charleston,  
W. Va.  
Clay Products Association, Chicago, Ill.  
Greenpoint Iron & Pipe Co., Inc., Brook-  
lyn, N. Y.  
Hammond Iron Co., Birmingham, Ala.  
Hudson Pipe & Supply Co., Bayonne,  
N. J.  
National Tube Co., Pittsburgh, Pa.

**PIPE.** (Cast Iron.)

American Cast Iron Pipe Co., Birming-  
ham, Ala.  
Casey-Hedges Co., Chattanooga, Tenn.  
Cast Iron Pipe Publicity Bureau, Chi-  
cago, Ill.  
Central Foundry Co., The, New York.  
Gilmorgan Pipe & Foundry Co., Lynch-  
burg, Va.  
McWane Cast Iron Pipe Co., Birmingham,  
Ala.  
National Cast Iron Pipe Co., Birming-  
ham, Ala.  
Standard Cast Iron Pipe & Foundry Co.,  
Atlanta, Ga.  
U. S. Cast Iron Pipe & Foundry Co.,  
Burlington, N. J.

**PIPE.** (Coil.)

Frick Co., Waynesboro, Pa.  
York Mfg. Co., York, Pa.

**PIPE.** (Concrete Culvert and Sewer.)

Lock Joint Pipe Co., Amper, N. J.

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Armco Culvert & Flume Mfrs. Assn.,  
Middletown, Ohio.  
Florida-McCracken Concrete Pipe Co.,  
Tampa, Fla.

**PIPE.** (Dredge.)

Lancaster Iron Works, Inc., Lancaster, Pa.

**PIPE.** (Hammer-Welded.)

National Tube Co., Pittsburgh, Pa.

**PIPE.** (Highway.)

Florida-McCracken Concrete Pipe Co.,  
Tampa, Fla.

**PIPE.** (Iron and Steel.)

Ryerson & Son, Inc., Jos. T., St. Louis,  
and New York.

**PIPE.** (Riveted.)

Abendroth & Root Mfg. Co., New York.

**PIPE.** (Second-Hand.)

Albert & Davidson Pipe Corp., Brooklyn,  
N. Y.  
Albert Pipe Supply Co., Inc., Brooklyn,  
N. Y.

**PIPE.** (Sewer.)

Brooks Supply Co., Beaumont, Texas.  
Central Pipe & Supply Co., Charleston,  
W. Va.  
Greenpoint Iron & Pipe Co., Inc., Brook-  
lyn, N. Y.

**PIPE.** (Spiral Riveted.)

Abendroth & Root Mfg. Co., New York.

**PIPE.** (Steel.)

National Tube Co., Pittsburgh, Pa.  
Republic Iron & Steel Co., Youngstown, O.  
Youngstown Sheet & Tube Co., Youngs-  
town, O.

**PIPE.** (Wood.)

Michigan Pipe Co., Bay City, Mich.  
Standard Wood Pipe Co., Williamsport,  
Pa.  
Wyckoff & Son Co., A., Elmira, N. Y.

**PIPE.** (Wrought Iron.)

Reading Iron Co., Reading, Pa.  
Youngstown Sheet & Tube Co., Youngs-  
town, O.

**PIPE FITTINGS.**

American Cast Iron Pipe Co., Birming-  
ham, Ala.  
Griffin, Frank, Philadelphia, Pa.  
Kries & Sons Co., Henry A., Balto., Md.  
National Cast Iron Pipe Co., Birming-  
ham, Ala.  
Standard Cast Iron Pipe & Foundry Co.,  
Atlanta, Ga.

**PIPE UNIONS AND JOINTS.**

Dart Mfg. Co., E. M., Providence, R. I.

**PLATES.** (Steel.)

Bethlehem Steel Co., Bethlehem, Pa.  
Carnegie Steel Co., Pittsburgh, Pa.  
Carolina Steel & Iron Co., Greensboro,  
N. C.

**PLATES.** (Steel Tunnel Lining.)

Truscon Steel Co., Youngstown, Ohio.

**PLATES.** (Steel Tunnel Lining.)

Truscon Steel Co., Youngstown, Ohio.

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Chicago Pneumatic Tool Co., New York.  
Independent Pneumatic Tool Co., Chicago,  
Ill.  
Ingersoll-Rand Co., New York, N. Y.

**PNEUMATIC TOOLS.** (Used.)

Philadelphia Tool & Supply Co., Phila-  
delphia, Pa.

**POLES.** (Crescoted.)

American Crescote Works, Inc., New  
Orleans, La.  
American Crescoting Co., Inc., Louis-  
ville, Ky.  
Savannah Crescoting Co., Inc., Savannah,  
Ga.

**POLES.** (Cypress.)

Southern Cypress Mfrs. Association, New  
Orleans, La.

**POLES.** (Tubular Steel.)

National Tube Co., Pittsburgh, Pa.

**POLISHING LATHES.**

Clisco Machine Tool Co., Cincinnati, Ohio.

**POLISHING MCHY.** (Wheels, Blocks.)

Carborundum Co., Niagara Falls, N. Y.

**PORTABLE HOUSES.** (Metal.)

Blaw-Knox Co., Pittsburgh, Pa.  
Maryland Metal Building Co., Balto., Md.

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Van Dorn Iron Works Co., Cleveland, O.

**POSTS.** (Cast Iron, Railway and High-  
way.)

Casey-Hedges Co., Chattanooga, Tenn.  
U. S. Cast Iron Pipe & Foundry Co.,  
Burlington, N. J.

**POWDERED COAL EQUIPMENT.**

Erie City Iron Works, Erie, Pa.

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American Pulley Co., Phila., Pa.  
Cresson-Morris Co., Philadelphia, Pa.  
Davis Fdry. & Machine Works, Rome, Ga.  
Dodge Mfg. Corp., Mishawaka, Ind.  
Goldens' Foundry & Machine Co., Colum-  
bus, Ga.  
Lank-Belt Co., Philadelphia, Pa.  
Morse Chain Co., Ithaca, N. Y.  
Schottfeld's Iron Works, Macon, Ga.  
Wood's Sons Co., T. B., Chambersburg, Pa.

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draulic and Power.)

Cardwell Machine Co., The, Richmond, Va.  
Continental Gin Co., Birmingham, Ala.  
Davenport Mfg. Co., Inc., Davenport, Ia.  
Dunning & Boschert Press Co., Inc.,  
Syracuse, N. Y.

**PRESSES.** (Metal Stamping.)

Bliss Co., E. W., Brooklyn, N. Y.

**PRINTERS.** (Book, Catalog, Job, etc.)

Fleet-McGinley Co., Baltimore, Md.  
Smith Co., The Oscar T., Baltimore, Md.  
Young & Selden Co., Baltimore, Md.

**PULLEYS.** (Friction Clutch.)

Caldwell Co., Inc., W. E., Louisville, Ky.  
Cresson-Morris Co., Philadelphia, Pa.  
Wood's Sons Co., T. B., Chambersburg, Pa.

**PULLEYS.** (Magnetic.)

Buchanan Co., Inc., C. G., New York,  
N. Y.

**PULLEYS.** (Steel Rim.)

American Pulley Co., Phila., Pa.

**PULLEYS, SHAFTING AND HANGERS.**

American Pulley Co., Phila., Pa.  
Cresson-Morris Co., Philadelphia, Pa.  
Dodge Mfg. Corp., Mishawaka, Ind.  
Goldens' Foundry & Machine Co., Colum-  
bus, Ga.

**PULVERIZERS.**

Grundler Patent Crusher & Pulverizer  
Co., St. Louis, Mo.  
McLanahan-Stone Machine Co., Hollidays-  
burg, Pa.  
Raymond Bros. Impact Pulverizer Co.,  
Chicago, Ill.

**PUMPING MACHINERY.**

Cook, Inc., A. D., Lawrenceburg, Ind.  
Dean Bros. Co., Indianapolis, Ind.  
Earle Gear & Machine Co., Phila., Pa.  
Ingersoll-Rand Co., New York, N. Y.  
McGowan Co., The John H., Cincinnati, O.  
Moffatt Machinery Mfg. Co., Charlotte,  
N. C.  
Myers & Bro. Co., The F. E., Ashland, O.  
National Transit Pump & Machine Co.,  
Oil City, Pa.

**Platt Iron Works, Dayton, O.**

Reilly Mfg. Co., Inc., J. J., Louisville,  
Ky.  
Sydnor Pump & Well Co., Inc., Rich-  
mond, Va.  
Virginia Machinery & Well Co., Inc.,  
Richmond, Va.

**PUMPS.** (Air.)

Manistee Iron Works Co., Manistee, Mich.

**PUMPS.** (Air Lift.)

Chicago Pneumatic Tool Co., New York.  
Ingersoll-Rand Co., New York, N. Y.  
Sullivan Machinery Co., Chicago, Ill.

**PUMPS.** (Asphalt and Road Oil.)

Kinney Mfg. Co., Boston, Mass.

**PUMPS.** (Boiler Feed.)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
DeLaval Steam Turbine Co., Trenton, N. J.  
Earle Gear & Machine Co., Phila., Pa.  
Earle Pump & Engine Works, Medina, N. Y.  
Ingersoll-Rand Co., (A. S. Cameron Steam  
Pump Works), New York, N. Y.

**PUMPS.** (Boiler Feed.)

Myers & Bro. Co., The F. E., Ashland, O.  
Reilly Mfg. Co., Inc., J. J., Louisville,  
Ky.

**PUMPS.** (Centrifugal.)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Aurora Pump & Mfg. Co., Aurora, Ill.  
DeLaval Steam Turbine Co., Trenton, N. J.  
Earle Gear & Machine Co., Phila., Pa.  
Earle Pump & Engine Works, Medina, N. Y.  
Goulds Mfg. Co., The Seneca Falls, N. Y.  
Ingersoll-Rand Co., (A. S. Cameron Steam  
Pump Works), New York, N. Y.  
Manistee Iron Works Co., Manistee, Mich.  
Morris Machine Works, Baldwinville, N. Y.  
Nashville Industrial Corp., Old Hickory,  
Tenn.

**PUMPS.** (Centrifugal.)

Pennsylvania Pump & Compressor Co.,  
Easton, Pa.  
Pusey & Jones Co., The, Wilmington, Del.  
Wood & Co., R. D., Philadelphia, Pa.

**PUMPS.** (Contractors.)

Aldrich Pump Co., Allentown, Pa.  
Domestic Engine & Pump Co., Shippens-  
burg, Pa.

**PUMPS.** (Deep Well.)

Aurora Pump & Mfg. Co., Aurora, Ill.  
Cook, Inc., A. D., Lawrenceburg, Ind.  
Layne & Bowler Co., Memphis, Tenn.

**PUMPS.** (Dredging.)

Aurora Pump & Mfg. Co., Aurora, Ill.  
Ellicott Machine Corp., Baltimore, Md.  
Erie Pump & Engine Works, Medina, N. Y.

**PUMPS.** (Fire.)

Climax Engineering Co., Clinton, Iowa.  
Earle Gear & Machine Co., Phila., Pa.

**PUMPS.** (Hydraulic.)

Aldrich Pump Co., Allentown, Pa.  
Cardwell Machine Co., The, Richmond, Va.  
Dean Bros. Co., Indianapolis, Ind.  
Dunning & Boschert Press Co., Inc.,  
Syracuse, N. Y.

**PUMPS.** (Hydraulic.)

Goulds Mfg. Co., The Seneca Falls, N. Y.  
Nashville Industrial Corp., Old Hickory,  
Tenn.

**PUMPS.** (Power.)

Aldrich Pump Co., Allentown, Pa.  
Dean Bros. Co., Indianapolis, Ind.  
McGowan Co., The John H., Cincinnati, O.  
National Transit Pump & Machine Co.,  
Oil City, Pa.

**PUMPS.** (Steam.)

Cook, Inc., A. D., Lawrenceburg, Ind.  
Dean Bros. Co., Indianapolis, Ind.  
Fairbanks, Morse & Co., Chicago, Ill.  
Ingersoll-Rand Co., (A. S. Cameron Steam  
Pump Works), New York, N. Y.

**PUMPS.** (Steam.)

McGowan Co., The John H., Cincinnati, O.  
National Transit Pump & Machine Co.,  
Oil City, Pa.  
Pennsylvania Pump & Compressor Co.,  
Easton, Pa.

**PUMPS.** (Steam.)

Platt Iron Works, Dayton, O.  
Reilly Mfg. Co., Inc., J. J., Louisville,  
Ky.  
Sydnor Pump & Well Co., Inc., Rich-  
mond, Va.

**PUMPS.** (Steam.)

Vogt Brothers Mfg. Co., Louisville, Ky.

**PUMPS.** (Triplex Power.)

National Transit Pump & Machine Co.,  
Oil City, Pa.

**PUMPS.** (Vacuum.)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
American Air Compressor Works, Brook-  
lyn, N. Y.

**PUMPS.** (Water-Works.)

Goulds Mfg. Co., The Seneca Falls, N. Y.  
McGowan Co., The John H., Cincinnati, O.  
Manistee Iron Works Co., Manistee, Mich.

**PUNCHING AND SHEARING MCHY.**

Bliss Co., E. W., Brooklyn, N. Y.

**RAILINGS AND GRILLS, IRON AND**

BRASS. (Banks and Offices.)  
Dufur & Co., Baltimore, Md.

**RAILROAD CARS.** (Box, Flat, Gondola.)

Wilson & Co., E. H., Philadelphia, Pa.

**RAILROAD DITCHERS.**

American Holst & Derrick Co., St. Paul,  
Minn.

**RAILROAD DITCHERS.**

Marion Steam Shovel Co., The, Marion, O.

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Robinson & Orr, Pittsburgh, Pa.  
Sweet's Steel Co., Williamsport, Pa.

**RAILROAD EQUIPMENT AND SUPPLIES.** (Used.)  
Atlanta Loco. & Eqt. Co., Atlanta, Ga.  
Benjamin Equipment Co., Harry, St. Louis, Mo.  
Birmingham Rail & Locomotive Co., Birmingham, Ala.  
Equitable Equipment Co., Inc., New Orleans, La.  
Hymen-Michaels Co., Chicago, Ill.  
Levis & Co., Henry, Philadelphia, Pa.  
Smith & Co., W. M., Birmingham, Ala.  
Southern Iron & Equipment Co., Atlanta, Ga.  
Westbrook, Inc., John D., Norfolk, Va.  
Wilson & Co., E. H., Philadelphia, Pa.  
Wolfe Supply Co., W. A., St. Louis, Mo.

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Bethlehem Steel Co., Bethlehem, Pa.  
Cincinnati Frog & Switch Co., Cincinnati, Ohio.  
Frank, M. K., Pittsburgh, Pa.  
Koppel Industrial Car & Equipment Co., Koppel, Pa.  
Robinson & Orr, Pittsburgh, Pa.  
Sweet's Steel Co., Williamsport, Pa.

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Atlanta & West Point R. R., Atlanta, Ga.  
Canadian Pacific Railway Co., New York, Central of Georgia Rwy., Savannah, Ga.  
Missouri Pacific R. R. Co., St. Louis, Mo.  
Model Land Company of the Flagler System, St. Augustine, Fla.  
Seaboard Air Line Railway Co., Savannah, Ga.

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Benjamin Equipment Co., Harry, St. Louis, Mo.  
Carnegie Steel Co., Pittsburgh, Pa.  
Equitable Equipment Co., Inc., New Orleans, La.  
Frank, M. K., Pittsburgh, Pa.  
Hymen-Michaels Co., Chicago, Ill.  
Levis & Co., Henry, Philadelphia, Pa.  
Nashville Industrial Corp., Old Hickory, Tenn.  
Robinson & Orr, Pittsburgh, Pa.  
Sherwood, E. C., New York, N. Y.  
Smith & Co., W. M., Birmingham, Ala.  
Southern Iron & Equipment Co., Atlanta, Ga.  
Sweet's Steel Co., Williamsport, Pa.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Veller & Co., Birmingham, Ala.  
West Virginia Rail Co., Huntington, W. Va.  
Wolfe Supply Co., W. A., St. Louis, Mo.

**RAILWAYS.** (Industrial.)  
Cincinnati Frog & Switch Co., Cincinnati, Ohio.  
Hunt Co., Inc., C. W., West New Brighton, New York City.  
Koppel Industrial Car & Equipment Co., Koppel, Pa.

**RAILWAYS.** (Marine.)  
Charleston Dry Dock & Machine Co., Charleston, S. C.

**REFLECTORS.** (Electric Lamp.)  
Benjamin Electric & Manufacturing Co., Chicago, Ill.  
National Screw and Manufacturing Co., Cleveland, Ohio.

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Gautier & Co., J. H., Jersey City, N. J.  
Harbison-Walker Refractories Co., Pittsburgh, Pa.  
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**REFRIGERATING MACHINERY AND APPARATUS.**  
Arctic Ice Machine Co., Canton, Ohio.  
Columbus Iron Works Co., Columbus, Ga.  
Frick Co., Waynesboro, Pa.  
Ingersoll-Rand Co., New York, N. Y.  
Vilter Mfg. Co., The, Milwaukee, Wis.  
Vogt Machine Co., Inc., Henry, Louisville, Ky.  
York Mfg. Co., York, Pa.

**REINFORCING STEEL.** (Hot Galvanized.)  
Bessemer Galvanizing Works, Birmingham, Ala.

**REINFORCING WIRE FABRIC.** (Concrete Road.)  
Concrete Steel Co., New York, N. Y.  
National Steel Fabric Co., Pittsburgh, Pa.

**RESOURCES FOR INDUSTRIES.**  
Alabama Power Co., Birmingham, Ala.  
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Arkansas Light & Power Co., Pine Bluff, Ark.  
Atlanta & West Point R. R., Atlanta, Ga.  
Bureau of Immigration, Dept. of Agriculture, Tallahassee, Fla.  
Central of Georgia Rwy., Savannah, Ga.  
Columbus Elec. & Power Co., Columbus, Ga.  
Columbus, Ga., New Industries Committee, Daytona Beach Chamber of Commerce, Daytona Beach, Fla.  
Georgia Railway & Power Co., Atlanta, Ga.  
Hammond & Co., Brookville, Fla.  
Hendersonville Ch. of Com. Hendersonville, N. C.

Louisiana Power & Light Co., Sterlington, La.  
Mississippi Power & Light Co., Jackson, Miss.  
Missouri Pacific R. R. Co., St. Louis, Mo.  
Mobile Cham. of Commerce, Mobile, Ala.  
Model Land Company of the Flagler System, St. Augustine, Fla.  
Savannah Board of Trade, Savannah, Ga.  
Seaboard Air Line Railway Co., Savannah, Ga.  
Southern Railway System, Wash., D. C.  
Tennessee Electric Power Co., Chattanooga, Tenn.  
Valdosta Cham. of Com., Valdosta, Ga.

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Pusey & Jones Co., The, Wilmington, Del.

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Acme Road Machinery Co., Frankfort, N. Y.  
Austin-Western Road Machinery Co., Chicago, Ill.  
Blaw-Knox Co., Pittsburgh, Pa.  
Buffalo-Springfield Roller Co., Springfield, Ohio.  
Byers Machine Co., The, Ravenna, O.  
Erie Machine Shops, Erie, Pa.  
French & Co., A. W., Chicago, Ill.  
Galion Iron Works & Mfg. Co., Galion, O.  
Huber Mfg. Co., The, Marion, Ohio.  
Kinney Mfg. Co., Boston, Mass.  
Littlefield Bros., Cincinnati, O.  
Russell Grader Mfg. Co., Minneapolis, Minn.  
Universal Crane Co., The, Cleveland, O.  
Universal Road Machinery Co., Kingston, N. Y.  
Wood Hydraulic Hoist & Body Co., Detroit, Mich.

**ROAD AND STREET MATERIAL.**  
Barber Asphalt Co., Philadelphia, Pa.  
Birmingham Slag Co., Birmingham, Ala.  
Boxley & Co., W. W., Roanoke, Va.  
North Carolina Amelior Co., Hendersonville, N. C.  
Petersburg Sand & Gravel Corp., Petersburg, Va.  
Sloss-Sheffield Steel & Iron Co., Birmingham, Ala.  
Texas Co., The, New York, N. Y.  
Warren Brothers Co., Boston, Mass.  
Woodstock Slag Corp., Birmingham, Ala.

**ROAD BINDERS.**  
Barber Asphalt Co., Philadelphia, Pa.  
Texas Co., The, New York, N. Y.

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Acme Road Machinery Co., Frankfort, N. Y.  
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Galion Iron Works & Mfg. Co., Galion, O.

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Kinney Mfg. Co., Boston, Mass.

**ROAD OILS AND PRESERVATIVES.**  
Barber Asphalt Co., Philadelphia, Pa.  
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Texas Co., The, New York, N. Y.

**ROAD PLOWS.**  
Austin-Western Road Machinery Co., Chicago, Ill.

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Concrete Steel Co., New York, N. Y.  
National Steel Fabric Co., Pittsburgh, Pa.

**ROAD ROLLERS.** (Motor.)  
Austin-Western Road Machinery Co., Chicago, Ill.  
Buffalo-Springfield Roller Co., Springfield, Ohio.  
Galion Iron Works & Mfg. Co., Galion, O.  
Huber Mfg. Co., The, Marion, Ohio.

**ROAD ROLLERS.** (Steam and Gasoline.)  
Acme Road Machinery Co., Frankfort, N. Y.  
Austin-Western Road Machinery Co., Chicago, Ill.

**ROAD SCARIFIERS.**  
Austin-Western Road Machinery Co., Chicago, Ill.  
Buffalo-Springfield Roller Co., Springfield, Ohio.  
Galion Iron Works & Mfg. Co., Galion, O.  
Huber Mfg. Co., The, Marion, Ohio.  
Universal Road Machinery Co., Kingston, N. Y.

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Robertson Co., H. H., Pittsburgh, Pa.

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**ROOFING.** (Gypsum Tile.)  
U. S. Gypsum Co., Chicago, Ill.

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Barber Asphalt Co., Philadelphia, Pa.

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American Cement Tile Mfg. Co., Pittsburgh, Pa.

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American Rolling Mill Co., Middletown, O.  
American Sheet & Tin Plate Co., Pittsburgh, Pa.  
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Edwards Mfg. Co., The, Cincinnati, O.  
Globe Iron Roofing & Corrugating Co., Cincinnati, Ohio.  
Moersch-Edwards Corrugating Co., Inc., Cincinnati, Ohio.  
Republic Iron & Steel Co., Youngstown, O.  
Robertson Co., H. H., Pittsburgh, Pa.  
Sheet Metal Mfg. Co., Youngstown, O.  
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Friend & Co., Inc., Petersburg, Va.  
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Detroit Steel Products Co., Detroit, Mich.

**SASH.** (Steel Basement, Ventilating.)  
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**SAWS.** (Hack.)  
Atkins & Co., Inc., E. C., Indianapolis, Ind.

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Fairbanks Scales, New York, N. Y.  
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American Seating Co., Chicago, Ill.  
Andrews Co., A. H., Chicago, Ill.

**SCRAPERS.** (Drag.)  
Austin-Western Road Machinery Co., Chicago, Ill.

**SCRAPERS.** (Wheeled.)  
Austin-Western Road Machinery Co., Chicago, Ill.  
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Hunt Co., Inc., C. W., West New Brighton, New York City.  
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Ludlow-Saylor Wire Co., St. Louis, Mo.  
McLanahan-Stone Machine Co., Hollidaysburg, Pa.  
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Cambria Clay Products Co., Blackfork, O.  
Clay Products Association, Chicago, Ill.  
Dickey Clay Mfg. Co., W. S., Chattanooga, Tenn.  
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Owensboro Sewer Pipe Co., Owensboro, Ky.  
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McCracken Machinery Co., Sioux City, Ia.

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Carborundum Co., Niagara Falls, N. Y.

**SHAVINGS COLLECTING SYSTEMS.**  
Kirk & Blum Mfg. Co., The, Cincinnati, O.

**SHEET METAL WORK.**  
Kirk & Blum Mfg. Co., The, Cincinnati, O.  
National Blow Pipe & Mfg. Co., Ind., New Orleans, La.

**SHEET METAL WORKING MCHY.**  
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Bethlehem Steel Co., Bethlehem, Pa.  
Carolina Steel & Iron Co., Greensboro, N. C.  
Globe Iron Roofing & Corrugating Co., Cincinnati, Ohio.  
Republic Iron & Steel Co., Youngstown, O.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
Sharon Steel Hoop Co., Sharon, Pa.  
Sheet Metal Mfg. Co., Youngstown, Ohio.  
Sheet Steel Trade Extension Committee, Pittsburgh, Pa.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Wheeling Metal & Mfg. Co., Wheeling, W. Va.  
Wood Iron & Steel Co., Alan, Phila., Pa.  
Youngstown Sheet & Tube Co., Youngstown, Ohio.

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Lupton's Sons Co., David, Phila., Pa.

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Cortright Metal Roofing Co., Phila., Pa.  
Globe Iron Roofing & Corrugating Co., Cincinnati, Ohio.  
Wheeling Metal & Mfg. Co., Wheeling, W. Va.

**SHOES.** (Wood Stave Pipe.)  
Marion Malleable Iron Works, Marion, Ind.

**SHORES.** (Steel, Adjustable.)  
O. D. G. Co., The, Owensboro, Ky.

**SHOVELS.** (Revolving Steam.)  
Marion Steam Shovel Co., The, Marion, O.

**SHOVELS.** (Steam, Gas and Electric Power.)  
American Hoist & Derrick Co., St. Paul, Minn.  
Brown Hoisting Machinery Co., Cleveland, Ohio.

Bucyrus Co., South Milwaukee, Wis.  
Dempster Equip. Co., Knoxville, Tenn.  
Erie Steam Shovel Co., Erie, Pa.  
Harnischfeger Corp., Milwaukee, Wis.  
Inley Mfg. Co., Indianapolis, Ind.  
Marion Steam Shovel Co., The, Marion, O.  
Northwest Engineering Co., Chicago, Ill.  
Osgood Co., The, Marion, Ohio.  
Thew Shovel Co., The, Lorain, Ohio.

**SHUTTERS.** (Steel.)  
Pelle Co., The, Brooklyn, N. Y.  
Swedish Venetian Blind Co., New York.

**SHUTTERS.** (Steel and Wood Bi-folding.)  
Kinnear Mfg. Co., The, Columbus, Ohio.

**SILOS.** (Wood.)  
Woolford Wood Tank Mfg. Co., G. Paschall P. O., Philadelphia, Pa.

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Alberene Stone Co., New York, N. Y.

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Edwards Mfg. Co., The, Cincinnati, O.  
Robertson Co., H. H., Pittsburgh, Pa.  
Wheeling Metal & Mfg. Co., Wheeling, W. Va.

**SKYLIGHTS.** (Puttyless.)  
Schoedinger, F. O., Columbus, Ohio.

**SLAG.** (Concrete.)  
Birmingham Slag Co., Birmingham, Ala.  
Carnegie Steel Co., Pittsburgh, Pa.  
Gloss-Sheffield Steel & Iron Co., Birmingham, Ala.  
Woodstock Slag Corp., Birmingham, Ala.

**SLAG.** (Furnace.)  
Birmingham Slag Co., Birmingham, Ala.  
Gloss-Sheffield Steel & Iron Co., Birmingham, Ala.  
Woodstock Slag Corp., Birmingham, Ala.

**SLATE.** (Architectural.)  
Vendor Slate Co., Inc., Easton, Pa.

**SLATE PRODUCTS.**  
Vendor Slate Co., Inc., Easton, Pa.

**SLINGS.** (Wire Rope.)  
Roebbing's Sons Co., John A. Trenton, N. J.

**SLUICE GATES AND APPLIANCES.**  
Coldwell-Wilcox Co., Newburgh, N. Y.  
Smith Co., S. Morgan, York, Pa.

**SPEED REDUCERS.**  
Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.

**SPIKES.** (Railroad, Ship.)  
Bethlehem Steel Co., Bethlehem, Pa.  
Republic Iron & Steel Co., Youngstown, O.

**SPRAYING EQUIPMENT.** (Paint.)  
Binks Spray Equipment Co., Chicago, Ill.

**SPRINGS.**  
Wickwire Spencer Steel Co., New York.

**SPRINGS.** (Machinery, Railway, Spiral Steel.)  
Raymond Mfg. Co., Corry, Pa.

**SPRINKLERS.** (Street.)  
Austin-Western Road Machinery Co., Chicago, Ill.  
Hill Co., The, Milwaukee, Wis.

**SPRINKLER TANKS.** (See Tanks—Elevated Steel and Elevated Wood.)

**STACKS.** (Iron and Steel.)  
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
Chicago Bridge & Iron Works, Atlanta, Ga.  
Downingtown Iron Works, Downingtown, Pa.  
Heltzel Steel Form & Iron Co., Warren, O.  
Honhorst Co., The, Cincinnati, O.  
Lancaster Iron Works, Inc., Lancaster, Pa.  
Littleford Bros., Cincinnati, Ohio.  
Lombard Iron Works & Supply Co., Augusta, Ga.  
New York Central Iron Works Co., Inc., Hagerstown, Md.  
Petroleum Iron Works Co., Sharon, Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Schofield's Iron Works, Macon, Ga.  
U. S. Cast Iron Pipe & Foundry Co., Burlington, N. J.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

**STAIRS.** (Iron and Steel.)  
Woodbridge Ornamental Iron Co., Chicago, Ill.

**STAIRS.** (Pressed Steel.)  
Woodbridge Ornamental Iron Co., Chicago, Ill.

**STAIRS.** (Spiral Iron.)  
Woodbridge Ornamental Iron Co., Chicago, Ill.

**STAIR STEPS.** (Safety.)  
Alberene Stone Co., New York, N. Y.  
Irving Iron Works Co., Long Island City, N. Y.

**STAIR TREADS.** (Non-Slipping.)  
Concrete Steel Co., New York, N. Y.

**STAMPING.** (Sheet Metal.)  
Mullins Body Corp., Salem, Ohio.

**STAMPS.** (Brass, Rubber.)  
Dorman Co., The, J. F. W., Baltimore, Md.

**STANDPIPE.**  
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
Chicago Bridge & Iron Works, Atlanta, Ga.  
Hartley Boiler Works, Montgomery, Ala.  
Lancaster Iron Works, Inc., Lancaster, Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

**STATIONERS.** (Envelopes, Letter and Billheads, etc.)  
Smith Co., The Oscar T., Baltimore, Md.  
Young & Seiden Co., Baltimore, Md.

**STEAM SHOVELS.**  
Bucyrus Co., South Milwaukee, Wis.  
Erie Steam Shovel Co., Erie, Pa.  
Osgood Co., The, Marion, Ohio.  
Sherwood, E. C., New York, N. Y.  
Thew Shovel Co., The, Lorain, O.

**STEAM SPECIALTIES.**  
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.  
Jenkins Bros., New York, N. Y.  
Lunkenheimer Co., The, Cincinnati, O.  
Mueller Co., Decatur, Ill.  
Powell Co., The William, Cincinnati, O.

**STEAM TRAPS.**  
Jenkins Bros., New York, N. Y.

**STEEL.**  
Carolina Steel & Iron Co., Greensboro, N. C.  
Dietrich Brothers, Baltimore, Md.  
Gulf States Steel Co., Birmingham, Ala.  
Jones & Laughlin Steel Corp., Pittsburgh.  
Oliver Iron & Steel Corp., Pittsburgh, Pa.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
Sheet Metal Mfg. Co., Youngstown, O.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Union Drawn Steel Co., Beaver Falls, Pa.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Wood Iron & Steel Co., Alan, Phila., Pa.  
Youngstown Sheet & Tube Co., Youngstown, O.

**STEEL.** (Alloy.)  
Union Drawn Steel Co., Beaver Falls, Pa.

**STEEL.** (Cold Drawn.)  
Union Drawn Steel Co., Beaver Falls, Pa.

**STEEL.** (Cold Rolled.)  
Union Drawn Steel Co., Beaver Falls, Pa.

**STEEL.** (Screw-Free Cutting.)  
Union Drawn Steel Co., Beaver Falls, Pa.

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Bethlehem Steel Co., Bethlehem, Pa.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.

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Blaw-Knox Co., Pittsburgh, Pa.  
Champion Bridge Co., Wilmington, O.  
Chesapeake Iron Works, Baltimore, Md.  
Granger & Co., Inc., Louisville, Ky.  
McClintic-Marshall Co., Pittsburgh, Pa.  
Phoenix Iron Co., The, Phila., Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.

Richmond Structural Steel Co., Richmond, Va.  
Speed Architectural Iron Works, Louisville, Ky.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.

**STEEL BUILDINGS.** (Ready-made, Sectional.)  
Maryland Metal Building Co., Balto., Md.

**STEEL CASTINGS.**  
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**STEEL FORMS.** (Curb, Gutter, Slide-walk, Road.)  
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Heltzel Steel Form & Iron Co., Warren, O.

**STEEL LUMBER.**  
Truscon Steel Co., Youngstown, O.

**STEEL PIPE CONSTRUCTION.**  
New York Central Iron Works Co., Inc., Hagerstown, Md.

**STEEL PLATE WORK.**  
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Case-Hodges Co., Chattanooga, Tenn.  
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
Chesapeake Iron Works, Baltimore, Md.  
Chicago Bridge & Iron Works, Atlanta, Ga.  
Connerly & Co., Inc., Phila., Pa.  
Lancaster Iron Works, Inc., Lancaster, Pa.  
Petroleum Iron Works Co., Sharon, Pa.  
Phoenix Iron Co., The, Phila., Pa.  
Treadwell Constr. Co., Midland, Pa.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.

**STEEL SHEET PILING.**  
Carnegie Steel Co., Pittsburgh, Pa.  
Jones & Laughlin Steel Corp., Pittsburgh.  
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**STEEL STRIPS.**  
Sharon Steel Hoop Co., Sharon, Pa.

**STENCIL CUTTING MACHINES.**  
Diagraph Stencil Machine Corp., St. Louis, Mo.

**STENCILS.**  
Dorman Co., The, J. F. W., Baltimore, Md.

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Vogt Brothers Mfg. Co., Louisville, Ky.

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Detroit Stoker Co., Detroit, Mich.

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Electric Storage Battery Co., Phila., Pa.

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Blaw-Knox Co., Pittsburgh, Pa.

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Austin-Western Road Machinery Co., Chicago, Ill.

**STRINGERS.** (Pressed Steel Stairs.)  
Woodbridge Ornamental Iron Co., Chicago, Ill.

**STRIPS.** (Steel.)  
Sharon Steel Hoop Co., Sharon, Pa.

**STRUCTURAL STEEL AND IRON.**  
American Bridge Co., New York, N. Y.  
Belmont Iron Works, Philadelphia, Pa.  
Carnegie Steel Co., Pittsburgh, Pa.  
Carolina Steel & Iron Co., Greensboro, N. C.  
Champion Bridge Co., Wilmington, O.  
Chesapeake Iron Works, Baltimore, Md.  
Converse Bridge & Steel Co., Chattanooga, Tenn.  
De Con Co., Richard, Phila., Pa.  
Dietrich Brothers, Baltimore, Md.  
Granger & Co., Inc., Louisville, Ky.  
Jones & Laughlin Steel Corp., Pittsburgh.  
McClintic-Marshall Co., Pittsburgh, Pa.  
Moss Iron Works, J. E., Wheeling, W. Va.  
Phoenix Iron Co., The, Phila., Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.

Reilly Mfg. Co., Inc., J. J., Louisville, Ky.  
Republic Iron & Steel Co., Youngstown, O.  
Richmond Structural Steel Co., Richmond, Va.  
Roanoke Iron & Bridge Works, Inc., Roanoke, Va.  
Ryerson & Son, Inc., Jos. T., St. Louis and New York.  
Snead Architectural Iron Works, Louisville, Ky.  
Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.  
Van Dorn Iron Works Co., Cleveland, O.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.  
Wrenn & Co., O. E., Charlotte, N. C.

**STRUCTURAL STEEL.** (Hot Galvanized.)  
Bessemer Galvanizing Works, Birmingham, Ala.

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Freeport Sulphur Co., Freeport, Texas.  
Union Sulphur Co., The, New York, N. Y.

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Davison Chemical Co., The, Baltimore, Md.  
Du Pont de Nemours & Co., Inc., E. I., Wilmington, Del.

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Power Specialty Co., New York, N. Y.

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**SYSTEMS.** (Cost.)  
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**TABLETS.** (Brass and Bronze.)  
Walker & Son, Herbert T., Richmond, Va.

**TANKS.** (Air Compressor.)  
Air-Tight Steel Tank Co., Pittsburgh, Pa.  
Titusville Iron Works Co., Titusville, Pa.

**TANKS.** (Compartment Truck.)  
Hill Company, The, Milwaukee, Wis.

**TANKS.** (Elevated Steel.)  
Caldwell Co., Inc., W. E., Louisville, Ky.  
Chicago Bridge & Iron Works, Atlanta, Ga.  
Cole Mfg. Co., R. D., Newnan, Ga.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Schofield's Iron Works, Macon, Ga.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.

**TANKS.** (Elevated Wood.)  
Caldwell Co., Inc., W. E., Louisville, Ky.  
Davis & Son, G. M., Palatka, Fla.  
Woolford Wood Tank Mfg. Co., G. Paschall P. O., Philadelphia, Pa.

**TANKS.** (Ford Truck Sprinklers.)  
Hill Co., The, Milwaukee, Wis.

**TANKS.** (Iron and Steel.)  
Air-Tight Steel Tank Co., Pittsburgh, Pa.  
American Bridge Co., New York, N. Y.  
American Water Softener Co., Phila., Pa.  
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.  
Chicago Bridge & Iron Works, Atlanta, Ga.  
Cole Mfg. Co., R. D., Newnan, Ga.  
Dixie Culvert & Metal Co., Atlanta, Ga.  
Downingtown Iron Works, Downingtown, Pa.  
Hamburg Boiler Works, Inc., Hamburg, Berks County, Pa.

Hammond Iron Works, Warren, Pa.  
Hartley Boiler Works, Montgomery, Ala.  
Heltzel Steel Form & Iron Co., Warren, O.  
Hendrick Mfg. Co., Carbonado, Pa.  
Lancaster Iron Works, Inc., Lancaster, Pa.  
Littleford Bros., Cincinnati, O.  
Lombard Iron Works & Supply Co., Augusta, Ga.

New York Central Iron Works Co., Inc., Hagerstown, Md.  
Petroleum Iron Works Co., Sharon, Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Schofield's Iron Works, Macon, Ga.  
Titusville Iron Works Co., Titusville, Pa.  
Treadwell Constr. Co., Midland, Pa.  
Virginia Bridge & Iron Co., Roanoke, Va.  
Walsh & Weidner Boiler Co., Chattanooga, Tenn.  
Westinghouse Traction Brake Co., Wilmerding, Pa.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.

**TANKS.** (Seamless Steel.)  
National Tube Co., Pittsburgh, Pa.

**TANKS.** (Storage, Oil, etc.)  
Chicago Bridge & Iron Works, Atlanta, Ga.  
Dixie Culvert & Metal Co., Atlanta, Ga.  
Downingtown Iron Works, Downingtown, Pa.  
Hammond Iron Works, Warren, Pa.  
Nashville Industrial Corp., Old Hickory, Tenn.

Petroleum Iron Works Co., Sharon, Pa.  
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.  
Titusville Iron Works Co., Titusville, Pa.  
Youngstown Boiler & Tank Co., The, Youngstown, Ohio.

**TANKS.** (Wood.)  
Caldwell Co., Inc., W. E., Louisville, Ky.  
Davis & Son, G. M., Palatka, Fla.  
Virginia Machinery & Well Co., Inc., Richmond, Va.  
Woolford Wood Tank Mfg. Co., G. Paschall P. O., Philadelphia, Pa.

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Western Electric Co., New York, N. Y.

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Atlanta Terra Cotta Co., Atlanta, Ga.

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Saco-Lowell Shops, Boston, Mass.

**THERMOMETERS.** (Recording.)  
American Schaeffer & Budenberg Corp., Brooklyn, N. Y.

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Oconee Brick & Tile Co., Milledgeville, Ga.  
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**TILE MACHINERY. (Concrete Roof.)**

Crawfordville Machinery Co., Indianapolis, Ind.

**TILE RUBBER.**

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Cole Mfg. Co., E. D., Newman, Ga.  
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Cook, Inc., A. D., Lawrenceburg, Ind.

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New York Belting &amp; Packing Co., New York, N. Y.

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National Tube Co., Pittsburgh, Pa.**TURBINES. (Hydraulic.)**Cramp & Sons Ship & Engine Building Co., The Wm., Philadelphia, Pa.  
Davis Fdry. & Machine Works, Rome, Ga.  
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General Electric Co., Schenectady, N. Y.  
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Lunkenheimer Co., The, Cincinnati, O.  
Michigan Valve & Foundry Co., Detroit, Mich.**VALVES. (Acid-Proof.)**Lunkenheimer Co., The, Cincinnati, O.  
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Prest-O-Lite Co., Inc., The, New York.**WELL CONTRACTORS. (Oil, Artesian, etc.)**Cook, Inc., A. D., Lawrenceburg, Ind.  
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Virginia Machinery &amp; Well Co., Inc., Richmond, Va.

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Shepard Electric Crane & Hoist Co., Montour Falls, N. Y.**WINDLASSES.**

Hadfield-Penfield Steel Co., Bucyrus, O.

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**WINDOWS. (Steel Basement Case-ment.)**

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**WINDOWS. (Steel Garage.)**

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Dufur, Baggett & Co., Baltimore, Md.  
New Jersey Wire Cloth Co., Trenton, N. J.**WIRE GUARDS.**

Stewart Iron Works Co., Cincinnati, O.

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## WHEN PERMANENCE MEANS MONEY



In 1896 John Smith had an appraisal made of his warehouse. Q In 1924, twenty-eight years later, the building burned down. The appraisal also burned. Q The appraisal organization had their copy—plans, specifications, quantities of materials, labor, etc.—in their vault. They gave him the present cost of the warehouse. He used it as a basis for settlement of his fire loss. Q He was glad the appraisal organization was still in business. Q Stability and permanence are as essential in an appraisal organization as in an insurance company.

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## DISSOLVED ACETYLENE

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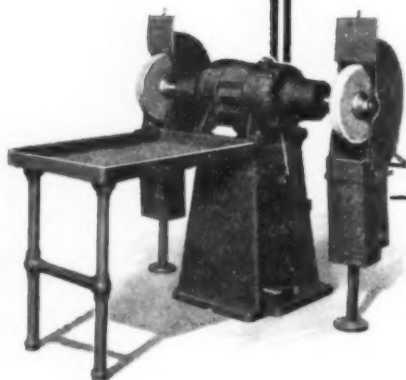
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Yes!—the picture is missing. We couldn't get one. But picture for yourself in this space 160 *Cisco Polishing and Buffing Lathes* on one floor, four sizes, 3, 5, 7½ and 10 hp., all individual motor drive. Cisco equipment was exclusively selected for the polishing and buffing department of the new plant of this company, one of the largest in the country.

#### Pictures were ruled out!

"We have not written regarding taking of photographs at the——plant because we have not been able to get permission from them to take these photos. Our Pittsburgh office advises that the——officials have made definite ruling to allow no photos to be made and it will be impossible to get them. Still trying to persuade them—If any luck, will advise you." F. P. Colville, Industrial Division, Westinghouse Electric & Mfg. Co., Louisville, Ky.

## A Splendid advertisement we can't write!



Write for this bulletin on *Cisco Polishing, Buffing, and Grinding Lathes.*

Mr. F. P. Colville, of the Louisville office of The Westinghouse Electric & Mfg. Co., writes us: "I have your letter of the 16th, in regard to the equipment that we have installed at the——Company, and am pleased to advise that all the machines are now in operation and working to the customer's entire satisfaction. I feel that we are very fortunate that everything started up so smoothly, and that the customer now has a job with which he is well pleased."

We can't tell you the name of the Company whose new plant we equipped with 160 Cisco polishing and buffing lathes, nor where they are, but Mr. Colville's letter is sufficient evidence of *another big Cisco installation satisfactorily in operation.*

If you are interested in the facts that prompted the purchase of this important Cisco installation, write for the bulletin "*Cisco Polishing, Buffing and Grinding Lathes.*" It gives the comparative facts by which lathe value should be determined.

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